



आपूर्ति

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By Arthashastra, The Economics Society of Miranda House



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Acknowledgement

As we unveil the 15th edition of Aapoorti, we convey our heartfelt appreciation to all who have contributed to bringing this journal to life. We express sincere gratitude to our esteemed Faculty Advisor Dr. Navpreet Kaur and Teacher-in-Charge Dr. Sutapa Das, whose unwavering guidance has been instrumental in shaping this publication.

We are indebted to a cadre of professors for their invaluable direction, and we extend our thanks to the Arthashastra team, particularly Nandini Kalantri (President) and Amirthavarshini Kanan (Vice-President), for their steadfast support. Special appreciation goes to the Marketing and Design Teams for their efforts in promoting and designing our work.

Our gratitude extends to our esteemed interviewee Dr. Surjit Bhalla, as well as all the guest contributors for their valuable pieces of work. A special mention goes to Dr. Annavajhula J. C. Bose, whose consistent support and ideas have been invaluable throughout the years.

To our readers and friends, thank you for your enthusiastic support. We truly hope that you find reading this edition an enriching experience. Finally, we express our sincere thanks for the unwavering commitment and relentless effort invested by our team members in creating a journal that showcases our utmost dedication and hard work.

With heartfelt gratitude and much love,

The Editorial Board

Aapoorti, The Economics Journal of Miranda House

Editor's Note

We take great pride in presenting to you the fifteenth edition of *Aapoorti*. Over the years, *Aapoorti* has fostered critical thinking and a culture of intellectual exploration within the Economics Department. This edition, themed *Policy Design* delves into the analysis of policies that shape economies, governance, and societal structures.

In today's rapidly evolving landscape, policy design stands at the nexus of economic theory and real-world application, influencing everything from fiscal decisions to social welfare initiatives. Whether addressing market inefficiencies, fostering inclusive growth, or navigating the complexities of global trade, well-crafted policies remain the bedrock of sustainable development.

A highlight of this edition is an exclusive conversation with *Dr. Surjit Bhalla*, whose insights shed light on the nuances of policy formulation and its impact on economic growth and inequality. His perspective offers a deeper understanding of how empirical research and data-driven strategies contribute to sound policymaking.

This edition, centred around, 'Policy Design and its Implications' underscores the pivotal role of policymaking in shaping society, education, and life at large.

Our guest contributors come from renowned colleges nationwide that resulted in diverse submissions, ranging from multidisciplinary research papers to thought-provoking perspectives.

We aspire for this edition to provide you with novel insights and distinctive perspectives across a wide range of topics. May it enhance the reader's understanding as profoundly as the process of crafting *Aapoorti* enriched its authors.

Warm Regards,

Ekanshi and Gitika

Editors-in-Chief

Faculty Advisor's Note

In this year's Aapoorti we have a diverse range of content, bringing the thought-provoking topics covered, from economic policy to gender issues and entertainment. These articles bring out timely interventions in the recent economic development of the world, and more importantly of India.

Economic policy, as explored in the magazine, is an arena of constant evolution that impacts both Indian and global economy. The student contributors have demonstrated an excellent grasp of current economic trends and the implications of various policy decisions, providing insightful perspectives on how these affect our daily lives along with the future prospects.

These discussions in the article go beyond the popular forms of analysis bring together social and empirical discourse. The analysis of the entertainment industry provides snapshot of the newer types of demands in the society and its implication for economy. The magazine prompts us to think critically about representation, power structures, and the role of entertainment in shaping public opinion.

Aapoorti has continued to provide a platform for fostering critical thought among young researchers with multifaceted approach. This issue in particularly showcases the intellectual curiosity and creativity of our student body. I encourage readers to engage with the articles, reflect on the issues presented, and continue to foster the discussion to enhance the learning process.

I would like to express my sincere gratitude to our Principal and the faculty members of the department for their unwavering encouragement and support. This issue has been made possible through the commendable efforts of Ekanshi and Gitika, along with the entire editorial team.

Dr. Navpreet Kaur

Department of Economics

Miranda House

Teacher in-charge's Note



Keeping pace with time, the buds have blossomed into full bloom now. We are delighted to introduce the 15th edition of our annual magazine, Aapoorti. In its long 15-year journey, the magazine has become a time-bearer by producing and incorporating articles that address contemporary issues and socio-economic issues that are always worth exploring as a social science researcher.

The theme of the present edition is 'Policy Design and its Implications'. The University of Delhi has incorporated Fiscal and monetary policy issues both in a closed economy and open framework in the BA Economics honours course which largely deals with macroeconomic indicators like unemployment rate, inflation rate, growth rate of output along with interest rate and exchange rate. We are eagerly waiting to read articles where the students have gone beyond the purely economic issue and analysed the role of public policy design in addressing socio-economic issues like interlinkages between infrastructure development related to women's safety measures and violence against women; achieving environment sustainability via taxation. This edition is special in the sense that apart from the theme articles, there are articles that address the contribution of psychological factors like nostalgia, and human perception of discounts on business outcomes and many more.

Finally, every effort made by our beloved students to ensure quality production, while balancing timely submissions of internal assessments, continuous assessment tests, assignments, and exploring literature beyond the course curriculum, is truly commendable.

We wish our readers an insightful and thought-provoking journey.

Dr. Sutapa Das

Teacher-in-charge

Department of Economics

Editor's Desk

Urban Development and Social Awareness: Evaluating Their Impact on Sexual Violence, Women's Mobility, and Economic Participation in India

Ekanshi Makheja, Jasveen Kaur, Tanya Rajesh, Rama Vivek Gulavani

Abstract

Violence against women is a prevalent issue that stands as a barrier towards socio-economic growth. Globally, the UN 2030 Agenda identifies the need and relevance of women's safety and empowerment through better infrastructure, education, and justice. This study attempts to uncover the relationship between urban infrastructure, and reported rates of sexual violence against women. Data sourced from the National Crime Records Bureau of India and the World Bank has been used to find the correlation between government expenditure on education and access to electricity with crime against women. The need for gender-sensitive infrastructural development is reiterated through the negative relation between access to electricity and crime rates. In contrast, a positive correlation between expenditure on education and crime against women indicates the prevalence of other societal issues. Additionally, analysis of primary data of population across demographic variations provides the impact of socio-economic differences on women's safety and its public perception. Overall, the paper uncovers the multifaceted nature of violence against women in India, highlighting the importance of gender-sensitive urban planning and nuanced education policies.

Keywords: Women, Crime, Education, Urbanisation

1. Introduction

Violence against women is a global phenomenon, though its forms and magnitude may vary from region to region. Women in general may suffer physical, sexual, psychological, and economic violence, both inside and outside the boundaries of their household. According to WHO, 35 per cent of women worldwide have experienced either physical and/or sexual intimate partner violence or non-partner sexual violence (WHO, 2013). Such violence is a fundamental violation of women's basic human rights and is a barrier to their full participation in all spheres of life. An abused woman loses her sense of self and is unable to perform independently, she might never be able to get financially independent due to control

over her income, or it might be the case that physical and emotional abuse hinders her daily practices and forces her to confine herself to household chores.

A lot of research has shown that crime against women is the result of prevailing inequalities and power imbalances between men and women in our society. The most commonly mentioned cause of violence against women is patriarchy, defined as a social system in which men are placed above women. Various cultural norms have virtually institutionalized gender bias in our thinking pattern, and violence against women is one of its inhuman manifestations. These beliefs are so deep-rooted that even the victim sometimes does not realize she is being abused. In many cases, crimes go unreported due to the belief that it will ruin the family name and reputation, this further leads to crimes such as honor killing, where women are killed in the name of family reputation. The problem with India is that most crimes against women are not even considered crimes due to social beliefs and culture. As a result, a lot of these crimes go unreported and undocumented. According to a report from the International Center for Research on Women (ICRW) and Instituto Promundo (2010), 65% of Indian men believe women should tolerate violence to keep the family together, and women sometimes deserve to be beaten. Such beliefs increase crimes against women, including domestic violence, sexual assault, harassment, and emotional abuse.

In India, the criminalization of politics in terms of caste, religion, and ethnic identities causes increased crime against women (Karat and Agnihotri, 1993; Karat, 1998). Criminalization of politics fosters an environment where societal hierarchies are manipulated for political gain, say, exploiting caste to gain votes or using violence to maintain power. Women's movements in India have primarily been focused on patriarchy, sexual violence, oppression, domestic subordination, and similar issues through the lens of class and caste. At times, women from lower caste and class become victims of patriarchy and sexual violence, suffering abuses from not only men of their own class but also from men hailing from upper caste and class.

Uttar Pradesh is considered the most unsafe state for women.

In addition, the increasing use of the internet has significantly influenced the distribution of and access to pornography in India. Internet access has grown from 5 million users in 2004 to 40 million users in 2007, continuing to grow at a rate of 17 per cent a year. Moreover, access to pornographic material has increased, with 12 percent of internet websites being related to pornography. Bhuller, et al. (2013) suggest that internet usage is associated with a substantial increase in reported incidences of rape and other sex crimes, plausibly due to increased consumption of pornography. A laboratory experiment shows a positive

relationship between pornography and sexual aggression (Zillman, 1982; Allen, et al., 1995), particularly violent pornography (Donnerstein and Berkowitz, 1981). Morgan (1978) famously stated, "Pornography is the theory; rape is the practice", supporting the view that pornography not only constitutes violence against women but also serves as a primary conduit for such violence (Dworkin, 1981).

There are five main theoretical streams on intimate partners' violence against women: sexism, family violence, dependency theories, exchange theories, and status inconsistency theories. Sexism is fundamentally a 'cultural' approach, while family violence is closer to the 'economic' pole. The other three theories—dependency, exchange, and status inconsistency—include both cultural and economic elements. All five theories emphasize the role of patriarchy in fostering violence against women, though each conceptualizes patriarchy differently.

According to the National Crime Records Bureau (NCRB), the annual crime report for 2022 revealed a staggering 4,45,256 cases of crime against women, translating to approximately 51 FIRs every hour. This marked an increase from 2021's 4,28,278 cases and 2020's 3,71,503 cases. The crime rate was 66.4 per lakh population, with a charge sheeting rate of 75.8 in such cases. Shockingly, the majority of crimes against women were categorized by husband or relative (31.4%), followed by kidnapping and abduction (19.2%), assault with intent to outrage modesty (18.7%), and rape (7.1%).

Globally, WHO estimates that nearly 1 in 3 women face either physical or sexual intimate partner violence or non-partner sexual violence in their lifetime (Violence against Women Prevalence Estimates, 2018). In India, over 16 women out of every 100 thousand suffer from domestic violence. Despite 89,097 cases of crimes against women being registered in 2018, the actual crime rate per lakh population declined from 388.6 in 2017 to 383.5 in 2018.

In terms of global rankings, India is ranked 2nd in international homicide (United Nations Office for Drugs and Crime). It is also ranked 96th in the World's Safest Countries list. According to a report by Thomson Reuters Foundation (2018), India is considered one of the most unsafe places for women due to its high incidences of sexual violence, lack of access to justice in rape cases, child marriage, female foeticide, and human trafficking.

The International Center for Research on Women (ICRW) in multiple centers in India reported that 85% of men admit they had indulged in violent behavior against their wives at least once in the last 12 months. 57% of men admitted to have sexual abuse with their wives. 32% of men admitted to committing violence on their pregnant wives. The men indulged in

violence to establish their power over the weaker sex. Subtle and insidious forms of violence include repeated humiliation, insults, forced isolation, limitations on social mobility, the constant threat of violence and injury, and denial of economic resources.

In the 1996 survey of 6902 men in the state of Uttar Pradesh, up to 45% of married men acknowledged physically abusing their wives. The National Health Survey conducted under the stewardship of the Ministry of Health and Family Welfare, reported that >1/3 of women (34%) between the ages of 15-49 years have experienced spousal physical violence. The adverse health consequences that women experience due to violence are wide-ranging with physical, reproductive and sexual and mental health outcomes.

Studies from India reported violence in 19-76% of women (75%-76% in lower caste women; 42-48% in Uttar Pradesh and 36-38% in Tamil Nadu; and 19% in an urban slum community of childless women.) In Western India, 15.7% pregnancy-related deaths in the community series and 12.9% in the hospital series were associated with domestic violence. In Uttar Pradesh, 30% men reported beating wives. 22% of women of childbearing age from a potter community were physically assaulted. 34% of those physically assaulted required medical attention.

2. Literature review

Crime against women persists to be an ongoing problem. The interconnectedness of policy implementation to women related crimes has been reiterated by multiple studies. There has been a focus on three key areas namely the infrastructural advancements, legislation and socioeconomic factors.

Infrastructural Advancements

Srinivasan, Raji (2015) concludes that the absence of basic sanitation facilities (such as toilet facilities) can exacerbate vulnerabilities to violence in urban areas, particularly for economically disadvantaged women. This parallels research conducted in other countries as well. For example, Winter and Barchi(2015) find evidence of an association between lack of access to sanitation and VAW(Violence against women)

Gupta et al. (2022) find that higher levels of development, indicated by the Human Development Index (HDI) and increased female labor force participation, appear to reduce crimes against women. This suggests that as women gain more economic opportunities and overall development improves, instances of violence or crimes against women decrease.

The opposite relation, that women's safety concerns lead to lesser economic and infrastructural development and growth has been discussed by Fraser et al. (2017). A detailed table presented shows the minimum requirements of infrastructural facilities and how to use them for empowerment and transformation.

McIlwaine (2013) further states the paradoxical effect of urbanization on the female population. Apart from the social taboos and infrastructural lags, it also talks about urban poverty and stress induced violence as a potential factor. It was found by Graystone et al. (2022) that women bicyclists continued to be concerned about their safety even when safety against collisions were taken care of through infrastructural developments. Mohun et al. (2016) mentions the gaps in the current infrastructure which gives rise to the prevalent gender inequality and scope for crime against women. Thus, it proposes for a more inclusive infrastructural growth.

Legislation

The implementation of WPS (Women's Police Station) led to a 29 percent increase in the reporting of (Gender based violence) GBV cases to the police, driven by an increase in reporting of domestic violence cases and this is an increase in reporting rather than in incidence as noted by Amaral, Bhalotra, and Prakash(2021).

However, Sikri, Thakur, Tadele, and Cowen (2021) highlight that while women's police stations (WPSs) have successfully increased reporting rates, India's criminal justice system still falls short in significantly improving conditions for women. The existing backlog in policing and court systems undermines the progress made by WPSs, as many reported crimes remain uninvestigated or unresolved in a timely manner. Additionally, WPSs do not effectively reach a majority of women in need, facing challenges that range from geographic barriers and operational inefficiencies to deeper issues like entrenched gender norms and intersecting social dynamics, including class, caste, and religion.

Amaral (2014) observed that acts of violence within marriage went significantly down with improved property rights for women in India. The inheritance law led to better negotiations in the marriage market, more police reports of violence within marriages and lesser consumption of alcohol by partners.

Furthermore, the existence of gender based justice systems have proven to be effective for women's issues. Kethineni et al. (2016) discusses the success of Nari Adalats and Mahila Samakhya in investigating and disposing of a wide range of domestic violence cases in India.

(Socioeconomic Factors)

High rates of criminal violence are the price of racial and socioeconomic inequalities as noted by Blau, Blau(1982). Benson, M. L., Fox, G. L., DeMaris, A., & van Wyk, J. (2003) found that two measures of economic distress have significant effects on intimate violence. More employment instability and greater subjective financial strain increase its likelihood.

Ackerson and Subramanian (2008) observed that increased educational opportunities could significantly decrease intimate partner violence. This was concluded on the basis of lifetime and recent IPV (intimate partner violence) reports by women of different educational backgrounds. A positive relation was found between the higher educational levels and chances of reporting.

Ribeiro et al. (2017) focuses more on violence against pregnant women. It is observed that along with socioeconomic status, social support plays a crucial role in reducing crime against women. Social support, witnessing father beating mother, childhood physical punishment, alcohol abuse, along with socioeconomic status are the variables identified by Jeyaseelan et al. (2007).

Family relationships also emerged to be an important variable as observed by Lauritsen and Schaum (2004). Young and single women with children faced a greater risk of violence than women with stronger family relations. Gracia and Herrero (2007) highlights the need to decrease mistrust within the community and improve the perception of the neighborhood and its positive correlation with higher chance of reporting violence.

Apart from the aforementioned variables Gallo-Rivera et al. (2024) also highlights the personal and situational conditions leading to intimate partner violence, such as the immigrant status. Uthman et al. (2009) notes that education helped form positive sex related ideas and interactions. The lack of education led to women justify intimate partner

violence as they lacked the means to differentiate between a positive and negative sex interaction.

The aforementioned studies align with the justification that crime against women arise due to lags in infrastructural developments, legislative loopholes and socioeconomic factors.

3. Research Methodology

To address our research question, we conducted a regression analysis using a dataset spanning from 1996 to 2011. Regression analysis is a statistical technique used to examine the relationship between one dependent variable and one or more independent variables. It helps in understanding how the dependent variable changes when any one of the independent variables varies, while the other independent variables are held constant. The main goal of regression analysis is to model this relationship mathematically, allowing researchers to make predictions, identify trends, and infer causal relationships. By estimating the coefficients of the regression model, we can assess the strength and direction of the relationships between variables, enabling an evaluation of the effects of specific predictors. This method is particularly useful for isolating the influence of each factor while controlling for other variables, thus providing a clearer understanding of complex interdependencies within the dataset.

3.1 Research process

Step 1 - selection of indicators

The study selected Government Expenditure on Education and Access to Electricity as key variables to analyse their impact on crime rates against women. Government Expenditure on Education was chosen as a proxy for access to education, aiming to examine whether increased funding leads to greater awareness and social change, thereby reducing crimes against women. Access to Electricity was used to measure infrastructural development, considering its role in improving safety, economic opportunities, and overall living conditions. The study investigates whether these factors contribute to altering patterns of violence against women in India.

Step 2 - selection of database

For data collection we relied on international data collection agencies and National Crime Records Bureau of India Statistics. The data has been collected from World Bank open data sets and Yearly publishings of NCRB in India. The data is backed by international agencies and the Ministry of Home Affairs in India.

Step 3 - scaling the data

For coherent data analysis as well as results we had to scale the data. The data on government expenditure on education was originally reported in a large numerical format (e.g., ₹282,796,900,000.00). To simplify its presentation and enhance readability, it was scaled down by dividing it by 1 billion. This adjustment allows the expenditure to be expressed in billions of rupees (e.g., ₹282.7969 billion), making it easier to interpret and compare across datasets without altering the underlying values. Similarly, the data on the number of households with access to electricity was initially reported in a large numerical format (e.g., 471,512,810.2). To simplify its presentation, it was scaled down by dividing it by 1 million. This adjustment allows the figure to be expressed in millions of households (e.g., 471.5128102 million).

The data on the number of reported crimes against women was initially available in lakhs of cases (e.g., 16.29936 lakh cases). To simplify its presentation and enhance readability, it was converted to a smaller unit by expressing it in millions (e.g., 162.9936 million cases).

4. Data Analysis and Results

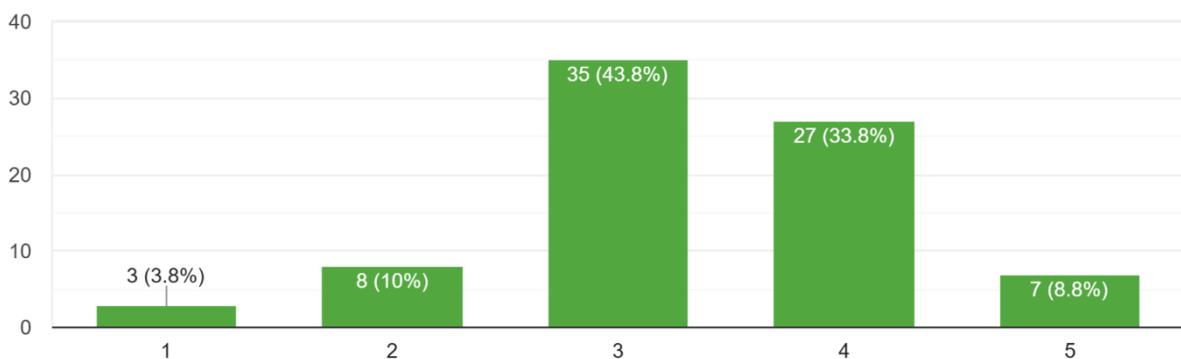
4.1 Primary Data Analysis

To assess the current state of women's safety, a primary survey was conducted focusing on key variables such as public transport, street lighting, and the education system, and their correlation with women's safety. A google form containing related questions was circulated across people from different age groups and regional backgrounds. The survey received responses from 71.3% women and 77.5% urban residents. Notably, 78.8% of the respondents were undergraduate students from across the country, offering a glimpse into the perspectives and attitudes of the younger generation. The survey included the following questions, along with an analysis of the responses:

Question 1. *How would you rate the street lighting in your area?*

Among the rural female population, 50% rated the street lighting as average, while the remaining 50% regarded it as poor or very poor. In suburban areas, 50% rated it above average, 41% as average, and 9% as very poor. Urban areas fared better, with 88.7% rating it as average or above average and 11.3% as poor. This highlights a stark disparity in street lighting infrastructure, with rural areas in urgent need of upgrades to improve safety and quality of life, especially for women.

How would you rate the street lighting in your area? 1 - Very poor 2 - Poor 3 - Average 4 - Good 5 - Excellent
80 responses

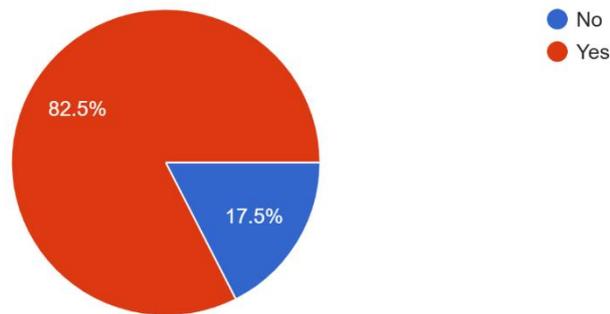


Question 2. *Does your area have a public transport facility ?*

Only 50% of the rural population reported access to public transport, compared to 75% in suburban and 87% in urban areas. Given how extensively urban and suburban areas are served by public transportation, it is imperative that rural areas' increased reliance on these services be addressed by prioritizing the expansion of public transportation networks.

Does your area have public transport facility ?

80 responses

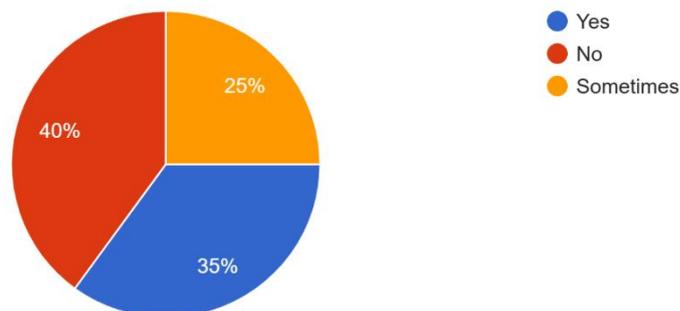


Question 3 *Do you feel safe using public transport in your area after dark?*

80% of the female respondents do not feel safe or show a sense of reluctance in using public transport after dark. 70% of these women live in urban or suburban areas and have access to public transport. Women respondents who reside in rural areas are completely against the notion of using public transport after dark and convey that they feel unsafe. On the other hand only 30% of the male respondents feel unsafe in using public transportation after dark. This gives a clear yet grim image of the effectiveness of public transport in urban, suburban and rural areas.

Do you feel safe using public transport in your area after dark?

80 responses



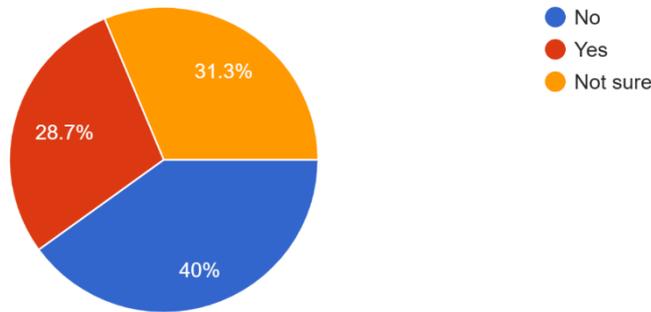
Question 4 *Have you noticed any visible increase in safety measures (e.g., police patrols, emergency helplines) in your area in the past few years?*

40% of the respondents have noticed no visible increase in safety measures in their area, out of which 90% live in urban or suburban areas. 50% of the rural population conveys no visible

increase in safety measures and the rest 50% is unsure. This reflects a need for further investments in citizen safety in India.

Have you noticed any visible increase in safety measures (e.g., police patrols, emergency helplines) in your area in the past few years?

80 responses

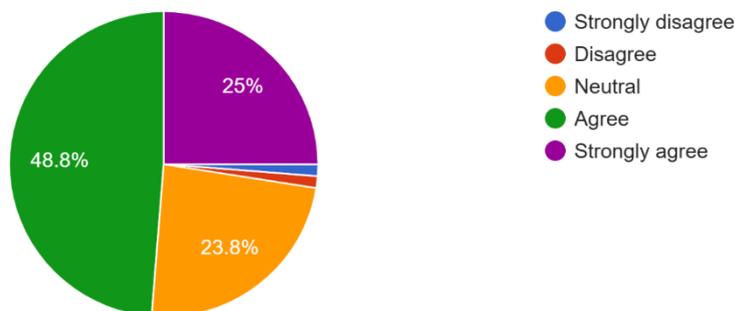


Question 5 Do you believe that better urban infrastructure (e.g., streetlights, safe transport, CCTV) can reduce crimes against women?

Almost 50% of the respondents agree while 25% strongly agree that better urban infrastructure can reduce crimes against women. Only 2.5% disagreed of which 50% were males. Thus, it can be concluded that women have stronger views about infrastructure and positively link it to their safety.

Do you believe that better urban infrastructure (e.g., streetlights, safe transport, CCTV) can reduce crimes against women?

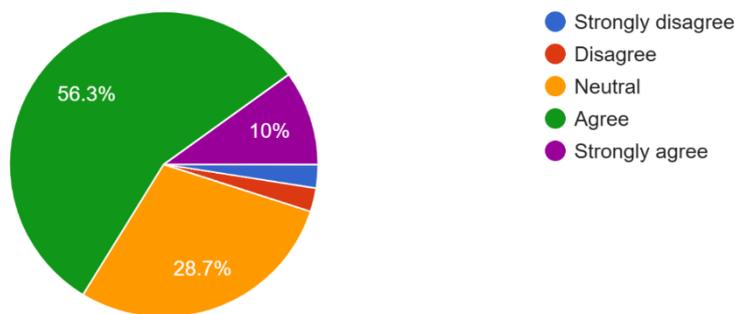
80 responses



Question 6 Do you think public awareness campaigns influence people's behavior toward gender-based violence?

A majority of almost 57% believes in the influence of public awareness campaigns towards gender based violence. Only 5% of the respondents showcased their disagreement with the statement. While the majority agrees, a significant 29% has a neutral opinion. Interestingly, almost 70% of them are females. It can be inferred that while public awareness campaigns are believed to influence behavior, most women don't find it reliable.

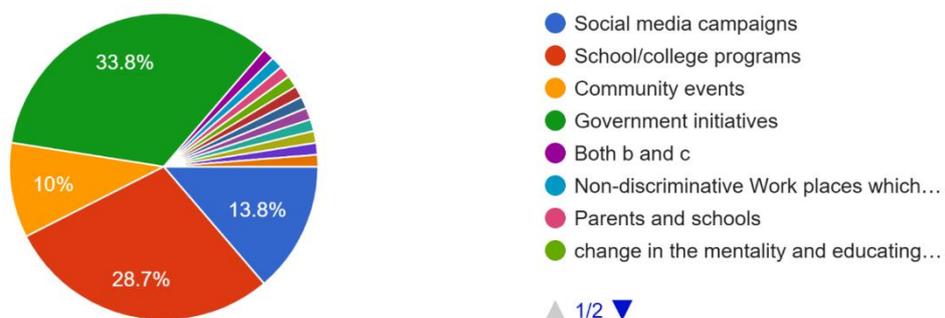
Do you think public awareness campaigns influence people's behavior toward gender-based violence?
80 responses



Question 7 *In your opinion, what is the most effective way to raise awareness about crimes against women?*

Most respondents(38%) believed that government initiatives were the most effective in raising awareness about crimes against women. A significant number also felt that schools and colleges have the potential to contribute to this awareness. Additionally, social media, community events, and stricter laws were also mentioned as important factors.

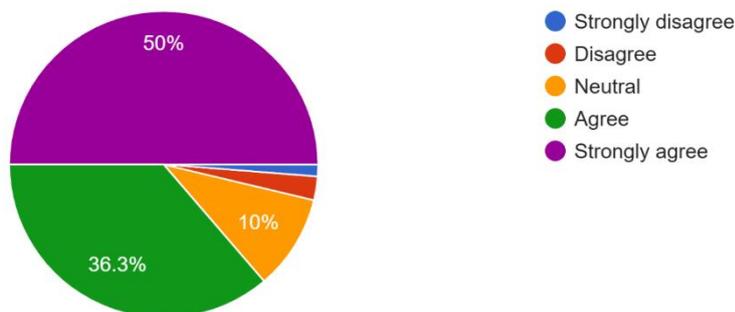
In your opinion, what is the most effective way to raise awareness about crimes against women?
80 responses



Question 8 *Do you believe that education contributes to changing societal attitudes toward women?*

Half of the respondents believed that education plays a significant role in changing societal attitudes toward women, indicating a strong consensus on its positive impact. A small minority, however, expressed skepticism on the ability of education alone to shift deeply ingrained societal attitudes toward women.

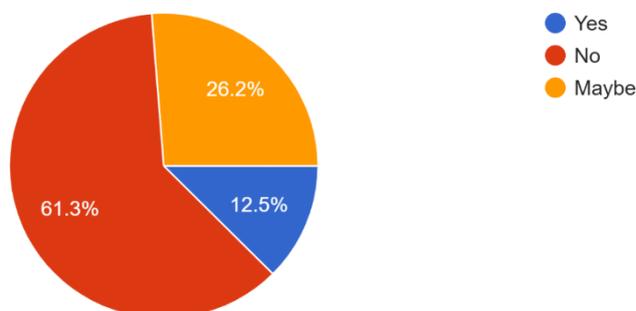
Do you believe that education contributes to changing societal attitudes toward women?
80 responses



Question 9 *Do you think the current education system adequately addresses issues related to gender-based violence?*

A large number of respondents (61.3%) believe that the current education system does not adequately address issues related to gender-based violence. This highlights a significant gap in how these crucial issues are integrated into syllabi or discussed within schools.

Do you think the current education system adequately addresses issues related to gender-based violence?
80 responses

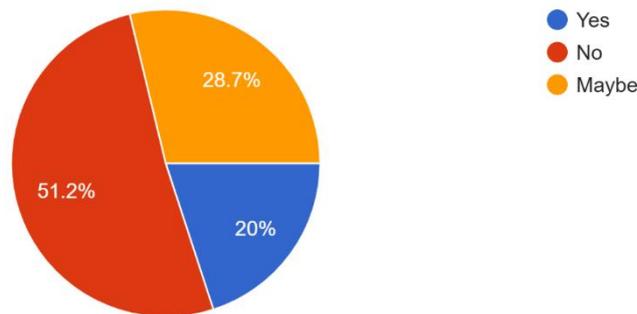


Question 10 *Do you feel that crimes against women are reducing in your locality?*

A significant 64.9% of females believe that crimes against women are not reducing, with 86.4% of them residing in semi-urban or urban areas. In contrast, only 17.4% of males feel the same, all of whom are from urban areas. This highlights a concerning gap in awareness among men regarding crimes against women, emphasizing the need for greater sensitization and awareness programs, especially targeted at urban male populations.

Do you feel that crimes against women are reducing in your locality?

80 responses



4.2 Secondary Data Analysis

4.2.1 Description of variables

Explanatory variables : We used two explanatory variables in this paper. The first variable, 'Government Expenditure on Education' is used as a proxy to analyse access to education. The goal was to establish a link between the central government's funding for education and crime rates against women. Moreover, we aimed to explore whether this relationship was negatively correlated and understand if increased access to education and social awareness could help reduce crime rates against women.

The second variable 'Access to Electricity' was used to analyse infrastructural development. We wanted to analyse the effects or benefits of increasing access to infrastructure on crimes against women. Violence against women in India is often structural and deeply embedded in society. We sought to analyze whether greater access to education and infrastructural development could change patterns of violence.

Dependent variable: The dependent variable in our analysis is 'Crime rate against women', to assess the frequency of crime incidents against women - the crime rates are an

accumulation of various crimes inflicted upon women such as kidnapping, rape, murder, etc. The motive was to analyse the relationship over a considerable period of time, and draw inferences from the results.

4.2.2 Analysis

The multiple linear regression model was specified with 'Crime rate against women' as the dependent variable and 'Expenditure on education,' and 'Access to electricity' as independent variables. The model is fitted using the Ordinary Least Squares (OLS) method, results of which are shown in Table 1.

Table1 : Results of Regression Analysis

	Coefficients	Standard Error	t Stat	P-value
Expenditure on education	0.042887159	0.006885008	6.229064111	0.00003073
Access to electricity	-0.061131603	0.023103869	-2.645946525	0.020166647

This implies that our results can be written mathematically as:

$$\text{Crime rate against women} = 182.347 + 0.0428(\text{expenditure on education}) - 0.0611(\text{access to electricity})$$

The analysis indicates a negative relationship between access to electricity and the crime rate against women, suggesting that increased household access to electricity is associated with a reduction in crimes against women. According to the regression analysis, a 1% increase in the number of households with electricity leads to a 6.1% decrease in the crime rate against women, while holding education expenditure constant. The P-value of 0.02 (less

than 0.05) confirms the statistical significance of this variable's impact on the dependent variable.

The analysis reveals a positive relationship between expenditure on education and the crime rate against women, indicating that higher education expenditure is associated with an increase in crimes against women. Specifically, a 1% rise in education expenditure corresponds to a 4.3% increase in the crime rate against women, while holding access to electricity constant. The P-value of 0.00003 highlights the statistical significance of this relationship.

This finding challenges the commonly held belief that educated individuals are less likely to contribute to societal issues, particularly those affecting women. However, several factors might explain this counterintuitive result:

- Governments may report inflated expenditure figures.
- A significant portion of the allocated budget may not reach its intended beneficiaries due to corruption.
- The quality of education cannot solely be measured by expenditure; it is also influenced by family dynamics, societal norms, and the broader environment in which students grow up.

Moreover, it is crucial to highlight the methodological limitations of regression analysis that may contribute to such counterintuitive results. Correlation does not imply causation; while education expenditure and crime rates against women appear to be related, this does not establish a direct causal link. Unobserved variables, such as socio-cultural factors, law enforcement efficiency, and economic conditions, may be influencing both education expenditure and crime rates. Additionally, omitted variable bias may arise if key explanatory factors are not included in the regression model. Measurement errors in crime data and education expenditure figures can further distort the results, leading to misleading inferences. Furthermore, multicollinearity between explanatory variables may undermine the robustness of the findings. If education expenditure is highly correlated with other socio-economic indicators, such as urbanization and income levels, it becomes challenging to isolate its independent effect on crime rates. Model specification errors, including incorrect functional forms or inadequate controls, may also contribute to misleading conclusions.

The regression statistics for the analysis are provided in Table 2 and can be interpreted as follows:

Table 2 : Regression Statistics

Multiple R	0.973303723
R Square	0.947320136
Adjusted R Square	0.939215542
Standard Error	2.981149838

1. Multiple R (0.9733): This is the correlation coefficient, indicating a strong positive linear relationship between the independent and dependent variables. A value close to 1 suggests a very high degree of association.
2. R Square (0.9473): This is the coefficient of determination, indicating that approximately 94.73% of the variation in the dependent variable (crime rate against women) can be explained by the independent variables (access to electricity and expenditure on education) in the model. This signifies a strong model fit.
3. Adjusted R Square (0.9392): This value adjusts the R Square for the number of predictors in the model and the sample size. It shows that 93.92% of the variance in the dependent variable is explained by the model after accounting for potential overfitting due to additional predictors.
4. Standard Error (2.9811): This is the standard deviation of the regression's residuals, representing the average distance that the observed values fall from the regression line. A lower value indicates a better fit of the model.

Overall, the regression model demonstrates a strong fit, as evidenced by the high R Square and Adjusted R Square values. However, the small sample size may limit the generalizability of the findings and weaken our model.

5. Conclusion

Violence against women is a major obstacle to achieving the United Nations Sustainable Development Goals for 2030 in India. The implications range from negative impacts on women's physical, mental, sexual, and reproductive health to significant economic costs in terms of expenditures on service provision, lost income for women and their families, or decreased productivity.

Using the data from National Crime Records Bureau of India and The World Bank we find correlational evidence that a negative relationship between access to electricity and the crime rate against women, suggesting that increased household access to electricity is associated with a reduction in crimes against women. We also find that there is a positive relationship between expenditure on education and the crime rate against women, indicating that higher education expenditure is associated with an increase in crimes against women, contradicting the expected negative relationship between the two. This discrepancy in real-time data suggests the need for stricter policies and more effective utilization of resources to address the issue.

The primary research analysis revealed that a significant 64.9% of females feel that crimes against women are not decreasing, with 86.4% of them living in semi-urban or urban areas. Additionally, 75% of respondents believe that improved urban infrastructure could help reduce crimes against women. Half of the participants also agreed that education plays a crucial role in changing societal attitudes toward women, highlighting a strong consensus on its positive impact. These findings generate policy implications for various stakeholders including NGOs, government, state, and local officials, which if implemented, will improve the well-being of millions of Indian women.

6. Future and Limitations

Our study uses current data from government reports to examine the relationship between various factors and crimes against women. However, it is not straightforward to accurately determine crime rates and incidents for women's safety. Official government statistics may contain inherent biases or inconsistencies, as they depend heavily on the accuracy of reporting and data collection methods, which may differ significantly across regions and agencies. Furthermore, due to social stigma or fear, several crimes against women are underreported.

Our survey is representative of diverse age groups, and also examines the opinions of men and women with regard to violence against women. However, due to feasibility constraints, most of our respondents are residents of India and the sample size is relatively small(80). In particular, if education, street lighting, and public transport are among the socio-economic factors and the infrastructure elements (which may indirectly influence the perception of women's security) then these socio-economic factors and the infrastructure elements are also intertwined with each other and sometimes obscure the independent effects of these factors on the incidence of offenses.

There are also many other variables that contribute to crime rates, including the effectiveness of legal systems and law enforcement in protecting women. Nevertheless, due to the scale and the resources of our work some aspects couldn't be thoroughly analysed. This constraint provides an avenue for scientific research to explore the effects of the above and other factors on violence committed against women.

A striking result of our secondary data analysis is that an increase in educational expenditure has not been followed by decreased rates of crime. This warrants policy measures to ensure optimal use of educational resources and, at the least, reform of the education system into a more effective system. On the other hand, work on regional differences between rural and urban regions revealed that geographic and socio-economic determinants had a significant impact on the development of opinions on women safety among respondents, which could have been missed in our study.

Within this, there is a critical area of investigation developing a policy efficacy metric with a view to understanding whether interventions in the fields of education, police, and other infrastructure-based work are achieving any desired consequence.

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Research Papers

Economic Ramifications of Climate-Induced Migration: A Quantitative Study of Fisherfolk Communities in Coastal Odisha

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1. Abstract

This paper addresses the economic impact of climate migration among fisherfolk communities of coastal Odisha, which are seriously affected by cyclonic storms, rising sea levels, and coastal erosion. Using a quantitative approach, it examines the convergence of environmental displacement and economic restructuring in terms of changes in household income, participation in the labour market, and the role of remittances in economic resilience. Leveraging data from government reports and empirical case studies of major cyclones, including Phailin (2013), Fani (2019), and Amphan (2020), this study identifies the most critical economic vulnerabilities in such scenarios and adaptation strategies of displaced communities. Findings suggest that though migration is a necessary survival strategy, it compounds economic inequalities, complicates local labour markets, and encourages dependency on inflows of remittances—the latter, although stabilising in the near term, are insufficient for ultimately stabilising local economies. The study underscores the urgent need for policy interventions, including financial inclusion, climate-resilient employment strategies, and targeted social safety nets to mitigate the economic shocks of climate-induced displacement.

2. Keywords

Climate-induced migration, fisherfolk communities, coastal Odisha, remittances, economic resilience, adaptive strategies.

3. JEL Classification

Q54: Climate change and disaster impacts

R23: Regional migration and labour markets

O13: Natural resources and rural livelihoods

J61: Labor mobility and migration

F22: Migration and economic integration

4. Introduction

4.1 Background of the Study

Climate change is considered one of the biggest challenges of the 21st century, with the coastal regions experiencing a disproportionately greater share of its impacts. The vulnerable ecosystems of these areas and the socio-economic vulnerabilities of their inhabitants create a complex web of challenges that demand urgent attention. In developing nations like India, the impact of climate change is very severe, affecting millions of livelihoods dependent on natural resources.

Odisha, a coastal state of eastern India, is an exemplary case for such challenges. Frequent cyclonic storms, increasing sea levels, and coastal erosion are some of the recurrent issues Odisha has been facing. Devastating events, like *Cyclones Fani (2019)* and *Amphan (2020)*, have intensified the vulnerability of Odisha's coastal communities, especially the fisherfolk. These communities, deeply reliant on marine ecosystems, face dwindling fish stocks, saline intrusion, and habitat destruction, forcing many to migrate in search of alternative livelihoods.

For these fisherfolk, migration is seldom a matter of choice but rather an enforced response to environmental and economic pressures. This movement redefines the economic landscape of their origin and destination regions, introducing new dynamics in labour markets, income distribution, and household stability. The economic impact of this phenomenon, including the role of remittances and adaptive strategies, therefore calls for deeper exploration to understand how such communities cope with and adapt to such changes.

While migration has been extensively studied in terms of socio-cultural impacts, its microeconomic dimensions, particularly for climate-sensitive populations like Odisha's fisherfolk, remain underexplored. This study, therefore, focuses on bridging this gap, highlighting how climate-induced migration interacts with economic structures and adaptive resilience in vulnerable communities.

4.2 Research Question(s) and Objectives

The central question guiding this research is: *How does climate-induced migration reshape the economic landscape of fisherfolk communities in Odisha?* Addressing this query involves unpacking several subsidiary questions:

1. How do migration and displacement affect household income and labour market participation?
2. What role do remittance flows play in mitigating income disparities within these communities?
3. What are the economic costs of displacement, and how do these costs vary across demographic and geographic subgroups?

The study aims to add to the literature on climate economics by exploring economic changes brought about by migration, offering insights into both adaptive strategies adopted by fisherfolk and the persistent challenges they face. With a combination of descriptive analysis, regional case studies, and visualisation techniques, this research intends to fill the gaps in previous literature and provide recommendations for policymakers.

4.3 Significance of the Study

To this date, social and cultural facets dominate the literature on climate-related migration, neglecting the economic ramifications. The study by *Dasgupta et al. (2007)* provides risks to the global economy due to rising sea levels but does not explain household-level effects. *Panda's (2010)* study reports that climate shock is the push factor of internal migration across India but fails to elucidate the coastal livelihoods through their economic adaptations. This paper fills such gaps by embracing a quantitative approach, anchored within regional specificity, to assess economic dynamics in affected fisherfolk communities under climate-induced migration.

Beyond the scientific contribution, the study has practical relevance in developing sustainable adaptation strategies. The research highlights the economic resilience mechanisms—remittance dependence and livelihood diversification—and provides findings that could inform policies geared towards reducing vulnerability and creating long-term economic stability. More broadly, this study adds to the new field of climate economics, which puts forward the imperative for microeconomic analyses centred on the lived realities of at-risk populations.

5. Literature Review

5.1 Overview of Existing Literature

Through the lenses of global economic risks, internal migration trends within India, and socio-ecological specificities in the face of coastal communities in Odisha, the economic consequences of climate-related migration have been evaluated.

In this aspect, *Nicholas Stern's* seminal work, *The Economics of Climate Change: The Stern Review (2007)*, provides an overview of the economic impacts of climate change with a focus on disproportionate effects on developing nations. Stern argues that the costs of inaction far outweigh the costs of mitigation, underscoring the urgent need for global cooperation to address climate change. This foundational text thus underscores the broader economic context within which regions like coastal Odisha are situated.

In a similar study, *Dasgupta et al. (2009)*, in their study, *The Impact of Sea Level Rise on Developing Countries: A Comparative Analysis*, examine the economic impacts of sea-level rise, especially on developing countries. According to them, rising sea levels pose significant threats to coastal economies in terms of land loss, reduced agricultural productivity, and increased migration pressure. This comparative analysis does provide insightful data on the vulnerabilities of the Indian coastal areas and Odisha region.

Internal migration due to climate shocks within India has been an important issue of consideration. In a paper, *Climate Change, Migration and Women: Analysing Construction Workers in Odisha*, *Patel and Giri (2019)* focused on gender-sensitive aspects of migration related to Odisha, concentrating more on construction workers. They show how climate change has worsened pre-existing vulnerabilities and, thus, increased migration among women and the associated economic problems they face in urban settings. The study offers an insight into the socio-economic dynamics of migration in Odisha.

In *Climate Change Induced Migration: A Case Study from Indian Sundarbans*, *Roy and Guha (2013)* analyse the migration trends in the Sundarbans (West Bengal), a region that has much in common with coastal Odisha. They highlight how environmental degradation and climate change force communities to migrate, causing substantial socio-economic changes. Their findings are very relevant to an understanding of broader patterns of climate-induced migration along India's coastlines.

With a particular focus on Odisha, there have been many studies that try to evaluate the state's vulnerability to climate change and its economic impacts. *Khristodas et al. (2022)*, in their research work titled *Assessment of Climate-Induced Sea-Level Rise Scenarios and Its Inundation in Coastal Odisha, India*, assessed the potential impact of sea-level rise on the

coastal districts of Odisha. According to them, massive inundation would likely occur with great threats to the livelihood of coastal communities, mainly fisherfolk, and substantial economic problems.

Hazra et al. (2022), in their work, *Assessing Coastal Vulnerability and Governance in Mahanadi Delta, Odisha, India*, evaluate the effectiveness of governance in coastal areas while managing the effects of climate-induced migration. There, they identified inadequacies of policy implementation while integrating different types of approaches into socio-ecological challenges through climate change. Such research calls upon the effective performance of governance systems in terms of the economic losses resulting from such migration.

Sahoo and Bhaskaran (2017), in their study *Coastal Vulnerability Index and Its Projection for Odisha Coast, East Coast of India*, develop a coastal vulnerability index to assess the susceptibility of Odisha's coastline to climate change impacts. Their findings indicate that large portions of the coastline are highly vulnerable, which has direct implications for the economic stability of coastal communities.

The *Central Marine Fisheries Research Institute (CMFRI)* has also actively engaged with issues concerning climate change within the marine fisheries sector. Initiatives undertaken were on preparing the marine fisheries sector to reduce impacts from climate change and to develop adaptive strategies for fisherfolk communities. This has been critical for the improvement of the resilience of coastal communities in Odisha.

5.2 Research Gap

Though valuable insights into broader economic risks from climate change and socio-ecological challenges of coastal regions have been provided in the existing literature, there is a glaring lacuna of quantitative studies focusing on household-level economic impacts of climate-induced migration among fisherfolk communities in coastal Odisha. Most research studies have focused on regional vulnerability assessments, governance frameworks, and environmental impacts while not giving enough emphasis to direct economic consequences to households. Such a gap has underlined the necessity for more targeted research, where it studies the economic effects that climate change-induced migration will bring about on fisherfolk families in terms of changes in income, employment opportunities, and access to resources. Addressing this gap becomes important to determine targeted policies and interventions for sustaining the resilience of these communities toward adaptation.

6. Methodology

This section summarises the data sources, the analytical framework, and the econometric techniques used in analysing the economic impacts of climate-induced migration in fisherfolk communities of Odisha. It derives its secondary data from various sources and bases its analysis on socio-economic indicators, demographic patterns, and environmental vulnerabilities.

6.1 Data Sources

To analyse the overall impact of climatic changes on various sectors in Odisha, primarily the fisherfolk communities, we will use the datasets of the Odisha Economic Survey from 2011 to 2023. From these reports, we can get data on GSDP (Gross State Domestic Product), NSDP (Net State Domestic Product), per capita GSDP, and per capita NSDP. For the changes in climatic conditions, we will use data on rainfall taken from the Census of India, NSSO, and IMD Odisha. To check the impact on fisherfolk communities, we will use Gross State Value Added (GSVA) from fishing and aquaculture. Then, to get information about migration and remittances, we will use reports from the Centre for Migration and Labour Solutions and the Ministry of Statistics & Programme Implementation.

6.2 Analytical Framework

To check the impact of climatic changes on the economic condition of fishermen, we will use the OLS (Ordinary Least Square) model of regression between two variables. Here the dependent variable is the growth rate of GSVA by fishing and aquaculture of Odisha and the independent variable is the average maximum annual rainfall in the coastal district of Odisha. The coastal districts of Odisha are Balasore, Bhadrak, Kendrapara, Jagatsinghpur, Puri, and Ganjam. Then we used the Odisha Economic Survey for the years 2009-10, 2012-13, 2013-2014, 2016-17, 2019-20, and 2021-2022 to compare the different economic variables of the fishing sector, like the growth rate of GSVA by fishing, the growth rate of fish production, export and import of fish, and employment in the organised sector.

6.3 Descriptive Framework

This research integrates several foundational economic theories to analyse the economic ramifications of climate-induced migration among fisherfolk communities in coastal Odisha. The Harris-Todaro Model (1970) is applied to explain the increase in rural-to-urban migration after cyclonic disasters when displaced workers migrate to urban centres in anticipation of better economic opportunities despite high risks of unemployment. The Dual Labour Market Theory by Doeringer & Piore in 1971 is applied to illustrate that the majority of migrant fisherfolk and agrarian workers enter the informal, low-wage sector with little

scope for upward mobility, enforcing economic precarity. In addition, the NELM theory of Stark and Bloom (1985) has been used to explain the risk diversification motive for remittances. These studies demonstrate that migrant earnings indeed act as a financial cushion in affected households. However, often the remittance flows are considered inadequate for household stability over long periods. The Permanent Income Hypothesis (Friedman, 1957) is used to analyse how remittance-dependent households attempt to smooth consumption amid income volatility, albeit with varying success depending on pre-existing financial linkages. Additionally, the Kuznets Curve (1955) is employed to demonstrate how climate-induced displacement initially exacerbates income inequality before any potential economic stabilisation, as households with better migration networks recover faster. Last but not least, Lewis's Theory of Structural Change (1954) accounts for labourers who are displaced from fishing and agriculture and later encounter difficulties in entering or remaining in non-traditional sectors due to incompatible skills, leading to downward occupational mobility. These theoretical frameworks collectively provide an analytical lens through which the economic impact of displacement is assessed across various case studies, reinforcing the study's findings on labour market disruptions, remittance dependency, and the widening of socio-economic disparities post-migration. To compare the economic condition of fisherfolk communities in the coastal region of Odisha, we will use five case studies, which are: Super Cyclone (1999), Phialin (2013), Fani (2019), Amphan (2020), and Dana (2024). For each case study, we have analysed the following metrics:

1. Household Income and Labour Market Participation (Trends in income changes and shifts in employment patterns post-migration.)
2. Role of Remittances (Contribution of remittances to income disparity reduction and economic stability.)
3. Economic Costs of Displacement (Identification and categorisation of costs across demographic and geographic subgroups.)

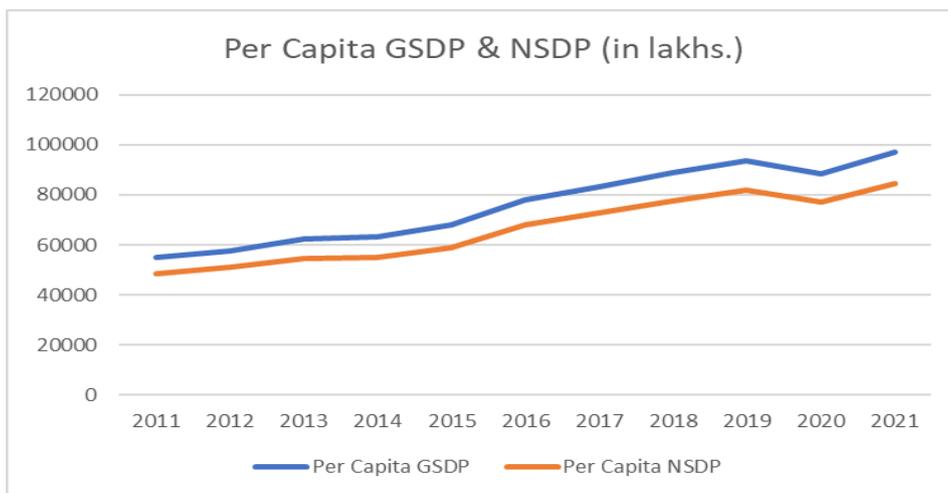
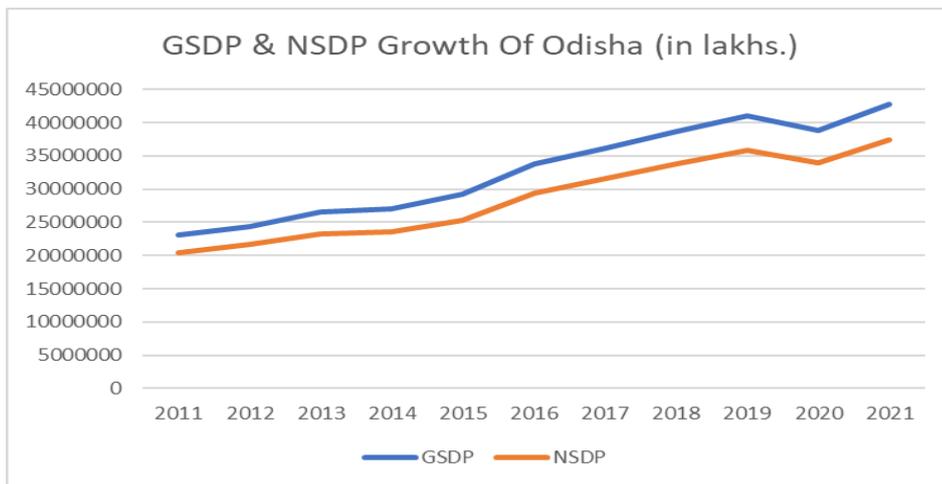
6.4 Assumptions

This study also draws its analytical framework from some underlying assumptions that form the backbone of the paper. The major assumption is that the primary factors for migration by fisherfolk communities in Odisha are based on economic distress, particularly decreased yields of fisheries, income uncertainty, and employment loss due to climate disasters. While environmental and social factors may dominate, the roots of the basic focus are invariably

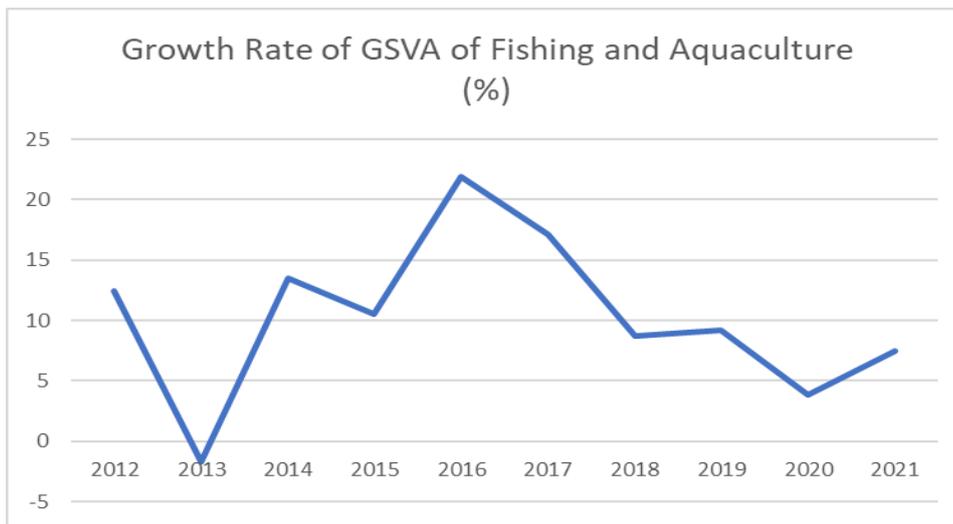
economic. Underlying this framework is also a relatively homogeneous influence on the involved communities' economic impact, allowing labour market shock, income disruption, and subsequent remittance losses to be projected similarly for virtually all displaced heads of household; in practice, differences in household coping strategies and financial literacy—and access to some alternative employment—income losses will result in diverging economic impacts instead. Another assumption is that the relation between climate shocks and economic downturns is linear in such a way that higher shocks lead to predictable income and labour participation disruption. However, post-disaster economies have more complex feedback mechanisms involving government intervention, foreign aid, and grassroots resilience initiatives, which may change the expected trends in the economy. The study hardly elaborates on long-term policy responses or infrastructural improvements that can have migration and recovery patterns in the future. Though relief programs by the government are presented, it is argued that their immediate impacts on economic stability are minimal; in fact, sustained policy measures could significantly lower long-term economic distress. Finally, the paper presumes that the data covering the available economics is enough to capture employment trends and income shifts; however, since informal labour is prominent in coastal communities, there could be a possibility of underestimating the scale of economic hardship or recovery. These sets of limitations and assumptions indicate the areas for further research that consider including household-level longitudinal studies, primary field surveys, and deeper analyses of socio-economic adaptation mechanisms.

7. Empirical Evidence

We will start our analysis with the impact of climatic changes on household income. For this, we have plotted the GSDP (Gross State Domestic Product) and NSDP (Net State Domestic Product), per capita GSDP, and per capita NSDP of Odisha to show the trend of these economic variables in time series data. From the following graph, we can see that all these variables had significant drops during adverse climates like Cyclone Phailin (2013), Cyclone Fani (2019), and Cyclone Amphan (2020).

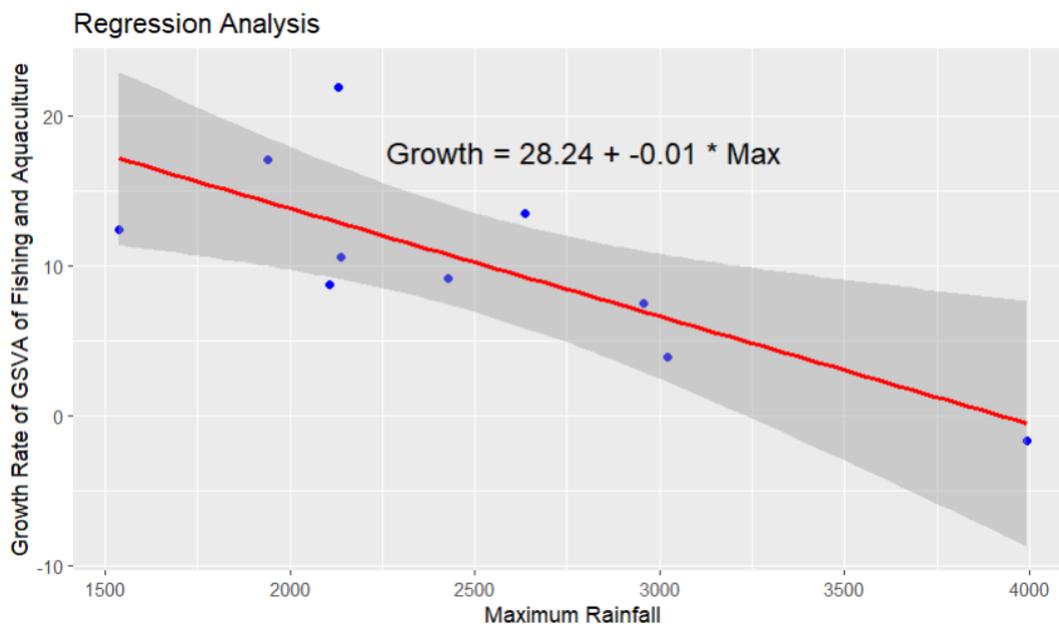


However, the worst affected communities during these faces are the fisherfolk communities. Following is a graph of the GSVA (Gross State Value Added) growth rate of fishing and aquaculture from 2012 to 2021. Here we are using fishing & aquaculture as a variable to study the impact on fishing communities. The data for all the variables has been taken from Odisha Economic Surveys. We can see the same pattern in the growth rate of GSVA of Fishing and Aquaculture—that extreme climatic conditions have adverse effects on them. The most obvious reason is that climatic change, especially natural disasters like cyclones, rises in sea levels, strong winds, heavy rainfall, floods, etc., stops the whole socio-economic activity of the fishing community. However, these are the immediate reasons for this drop in the growth rate. One consequence of these climatic changes is the migration of fisherfolk communities from the coastal region to other parts of the state and country.



These migrations have both positive and negative effects. On one hand, they bring remittances that improve the financial condition of the region, but on the other hand, they lead to economic loss in the region affected by the climate. For instance, according to the 2014 Odisha State Migration Report, migration accounts for 55–60% of the annual income of rural Odisha. In 2007-08, the rural region of Odisha received domestic remittances of 14.25 billion, making it the 6th highest in the country. The same report also states that there are a total of 4.17 lakh short-term migrants from rural Odisha; here, short-term migrants refer to those who had stayed away from the village for more than 1 month but less than 6 months. Out of these 4.17 lakh migrants, 82% were men, which shows that most of them migrated for job opportunities. 10 % of these migrants were from the coastal region of the state. Due to the unavailability of time series data on migration, it is not possible to show the relation between migration and household income for all the periods; therefore, we will use the method of case studies of some particular events to show the effect of climate-induced migration on fisherfolk communities.

However, before that, we will try to see the relation between climatic changes in the coastal region and the income of fisher communities in Odisha. For this, we will do a regression analysis and hypothesis testing between maximum rainfall in the coastal districts and the GSVA growth rate of the fishing and aquaculture sectors. The coastal districts of Odisha are Balasore, Bhadrak, Kendrapara, Jagatsinghpur, Puri, and Ganjam. The result of the analysis is as follows:



Term	Coefficients	Std_Error	T_Value	P_Value	Significance_Level
(Intercept)	28.2387	5.576393	5.0639	0.00097	0.05
Maximum Rainfall	-0.0072	0.002164	-3.3257	0.01045	0.05

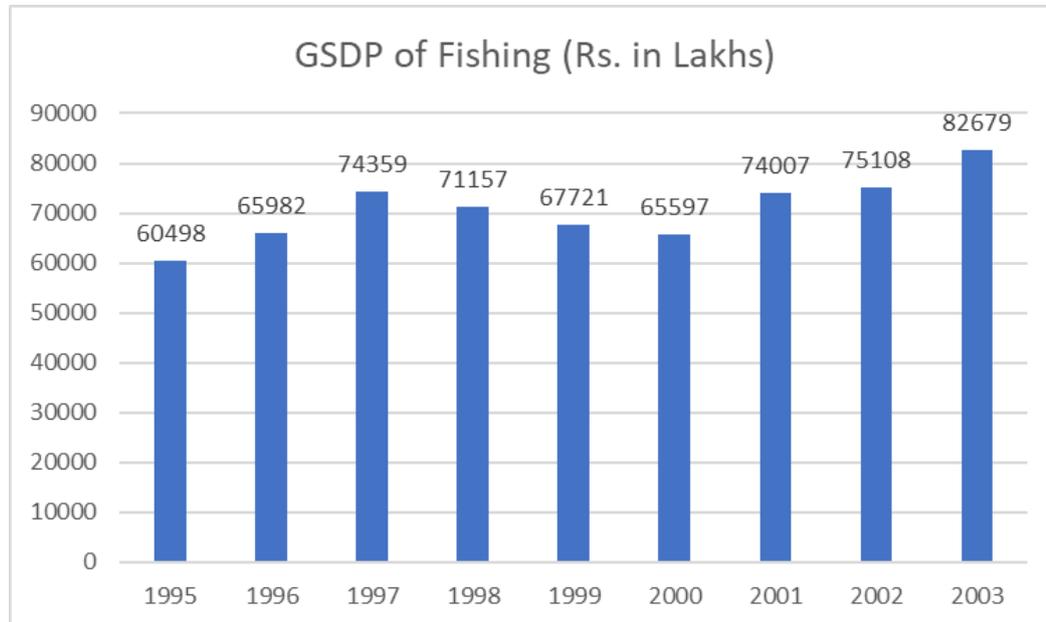
Hypothesis	P_Value	Significance_Level	Conclusion
When Maximum rainfall increases, the Growth Rate falls	0.01045	0.05	Reject Null Hypothesis: Rainfall has a significant effect on Growth Rate.

From the above results, we can see that the hypothesis testing has been successful in rejecting the null hypothesis at a significance level, which means that rainfall has a significant effect on the growth rate. Therefore, when maximum rainfall increases in coastal areas, it is very likely that the growth rate of the fishing and aquaculture sectors will fall. The P-value of the testing was 0.01, which shows a strong relation between the two variables. We can see that the coefficient of regression is negative; therefore, rainfall and growth rate have an inverse relation between them. The equation of regression is as follows:

Growth rate = $28.24 - 0.01 * \text{Maximum rainfall}$

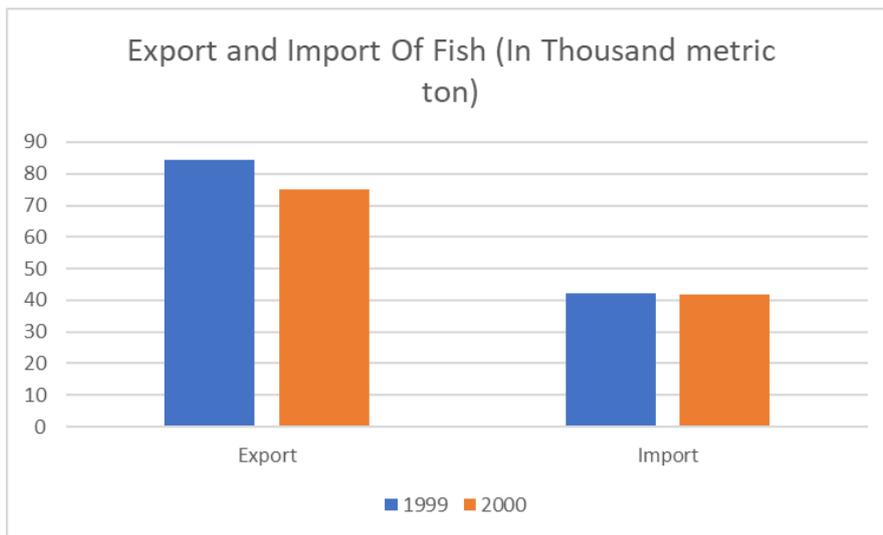
8. Case Studies

8.1 Super Cyclone (1999)

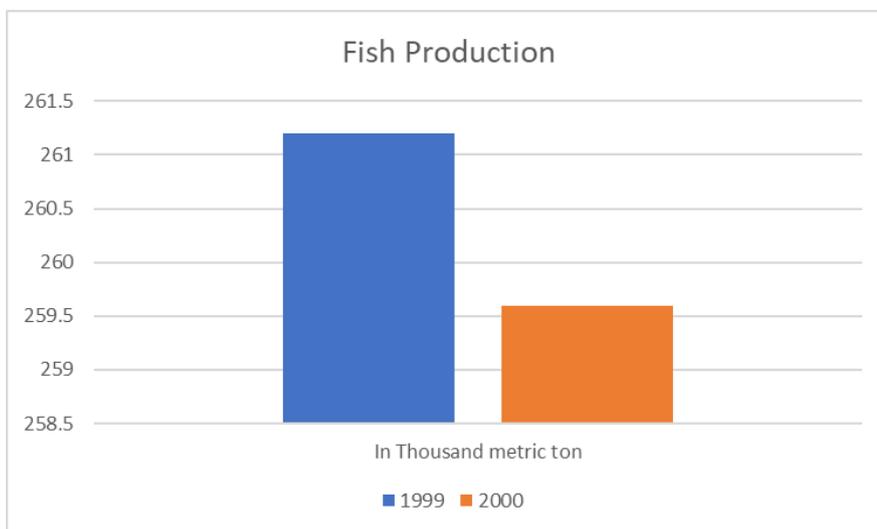


(at 1999-2000 prices)

To see the impact of climatic changes on the economic condition of fishing communities, we will first look at the Super Cyclone of 1999. For this, we use the Odisha Economic Survey of 2009-10 for our datasets. Due to this cyclone, the GSDP of fishing was reduced by 4.83% from 1998 to 1999, and this fall continued to 2000, as GSDP had fallen by 3.14% from 1999 to 2000, while the growth rate of GSDP in fishing had fallen by 0.52 percentage points. The production of fish dropped from 261.2 thousand metric tonnes in 1999 to 259.6 thousand metric tonnes in 2000. Similarly, the export of fish in Odisha dropped from 84.33 thousand metric tonnes to 75.08 thousand metric tonnes, while imports rose from 42.2 thousand metric tonnes to 41.99 thousand metric tonnes.



(at 1999-2000 prices)



8.1.1 Householder Income and Labour Market Participation

The Orissa supercyclone of 1999 had massive impacts on household incomes and labour markets, especially in coastal districts. The impact on the economic side was intense in sectors such as the agricultural sector, fishing, and small and micro industries; those are all basic sectors contributing to the development of the Odisha rural economy. Damage to crop stands, animal rearing stocks, and fishing gear immediately affected the household incomes of smaller farmers, labourers in agriculture, and fishermen.

A major trend that emerged post-disaster was labour displacement. Agricultural workers, who were largely wage earners, were left jobless due to massive crop failures. This resulted in a surge of migration towards urban centres, as the Harris-Todaro model predicts that rural distress often translates into an influx into the urban labour market. However, since

formal sector jobs were scarce, many of these workers were absorbed into low-paying, informal employment in construction and manual.

Women labourers, particularly those involved in informal agricultural work, were more economically vulnerable. The destruction of agricultural fields led to a significant reduction in wage labour opportunities, forcing women into unstable and often exploitative forms of employment. The collapse of small enterprises, including handloom and handicraft industries, led to large-scale unemployment among artisans and weavers, further aggravating income instability.

From the theoretical aspect, it could be interpreted from Keynesian economics: aggregate demand contracted due to sudden massive unemployment that may perpetuate long periods of economic stagnation without governmental public sector supplementation. In reality, although necessary relief measures, the efforts from the government could not promptly get back to the economic system being normal; rather, this would need some kind of structural recovery in terms of employment programs.

8.1.2 Role of Remittances in Economic Stability

Remittances have played a very limited but extremely important role in the post-cyclone economic revival. A large segment of the workforce of Odisha is already employed as migrant labourers, mostly in places like Kolkata, Mumbai, and Surat. After the cyclone, most of the affected families were dependent on monetary inflow from these external sources towards meeting their current consumption needs. However, remittances alone could not offset the scale of economic devastation, as the pre-existing migration pattern largely consisted of low-skilled labourers who earned meagre wages.

From an economic perspective, remittances are a counter-cyclical economic stabiliser, as suggested by the New Economics of Labour Migration (NELM) theory. In Odisha, remittance inflows, which temporarily cushioned the economic distress, were unable to play a major role in long-term recovery for two major reasons: (1) remittance-dependent households were primarily low-income, which meant the inflow of finances was inadequate to finance reconstruction, and (2) banking infrastructure disruptions after the cyclone made cash transfers inefficient and delayed.

There was little evidence of remittances being reinvested into productive assets or infrastructure, a requirement for long-term stabilisation of the economy. While in some areas remittance income is invested in entrepreneurship, the cyclone-induced crisis in Odisha saw most remittances used solely for survival, thereby limiting their impact on

regional economic revitalisation. This underscores the importance of having a more aggressive financial inclusion strategy in disaster-prone areas so that remittance flows are less interrupted during economic crises.

8.1.3 Economic Costs of Displacement

This came with severe economic implications of the displacement caused by the Orissa Super Cyclone, cutting across various demographic and geographic categories. More than 1.6 million houses were destroyed, making millions of people forcibly displaced. The costs included direct ones—loss of homes and livelihoods—and indirect costs, such as long-term losses in productivity and increased social vulnerabilities.

The most severe cost was borne by marginalised communities, such as Dalits and landless labourers. Because land titles existed for few of them, they were excluded from formal compensation programs. Economic displacement thus threw these groups deeper into poverty and widened the existing inequalities, in line with the Kuznets hypothesis regarding disaster-driven displacement increasing income disparities before any recovery efforts kick in.

A massive financial burden had to be borne by the state government since huge funds were required to be allocated for relief work, rehabilitation, and infrastructure rebuilding. The total estimated economic loss due to this cyclone was around INR 250 billion, or USD 5.7 billion. Housing, agriculture, and fishing are the main sectors that have been affected.

While government spending on reconstruction created some short-term employment, the absence of parallel private-sector investment meant that long-term economic recovery was slow. In addition, the cyclone disrupted human capital accumulation, especially among displaced children. With nearly 6,000 schools either damaged or destroyed, educational disruptions led to increased dropout rates, which in turn had long-term implications for labour market outcomes and economic mobility.

The human capital depreciation theory holds particularly well for this case—the theory states that protracted dislocation leads to lower skill retention and employability. Lastly, the ecological and infrastructural losses were part of the displacement cost. In this case, almost 2 million hectares of agricultural land had been inundated; hence, destabilising the long-term losses in productivity would be considerable for Odisha's agrarian economy. The destruction of fisheries infrastructure further destabilised the coastal economy, resulting in protracted unemployment and economic hardship for fishing communities.

8.2 Cyclone Phailin (2013)

8.2.1 Household Income and Labour Market Participation

Odisha's experience was severely and deeply affected, with household incomes and employment largely dislocated from normal patterns across Ganjam, Puri, and Khordha districts that were most battered by Cyclone Phailin. The prime sectors affected involved agriculture, fishing, small industries, and unorganised employment; all these have a strong grip on the local economy. This resulted in a drastic fall in the income of wage labourers, sharecroppers, and small businesspeople, mainly because productive assets such as fishing boats, agricultural land, and small industrial units suffered massive damage.

Labour market participation experienced notable shifts post-disaster. The destruction of cropland led to significant job losses among agricultural labourers, particularly those without land ownership. Sharecroppers and marginal farmers were disproportionately affected, as compensation schemes targeted landowners. Many displaced workers thus sought alternative employment in urban centres, further intensifying rural-to-urban migration.

This phenomenon is economically similar to the Harris-Todaro model, which predicts an increase in urban informal sector employment following rural distress. However, the shift does not guarantee stable livelihoods because many of the displaced workers entered precarious, low-wage jobs in construction and other urban informal sectors.

Additionally, Cyclone Phailin devastated Odisha's micro, small, and medium enterprises (MSMEs) that have high employment generation capacities. As a result, an estimated 1,039 units of MSME suffered damage while undergoing reconstruction, spreading unemployment among artisans, weavers, and small entrepreneurs. Given the capital and infrastructure-intensive nature of these industries, capital and infrastructure losses combined with long-term unemployment meant that income gaps in affected communities widened. Such a disruption illustrates the vulnerability of informal economies to natural disasters and the need for targeted financial and employment recovery programs.

8.2.2 Role of Remittances in Economic Stability

Remittances played an important but inadequate role in softening the economic shock of Cyclone Phailin. Several affected households had financial inflows from family members working in other states or abroad. However, the scale of these remittances was too small to make up for the loss of income and damage to property. Although remittances helped

households recover short-term income, they were not instrumental in stabilising the economy in the long term since the losses were too huge.

The theoretical framework of remittance dependency suggests that in disaster-affected regions, remittances can act as a countercyclical economic buffer, providing liquidity when local employment opportunities decline. However, in Odisha, the pre-existing low rate of highly skilled labour migration meant that remittance inflows were insufficient to generate substantial economic resilience. Most remittances came from low-wage workers employed in domestic labour markets rather than from high-income overseas employment, thereby limiting their overall economic impact.

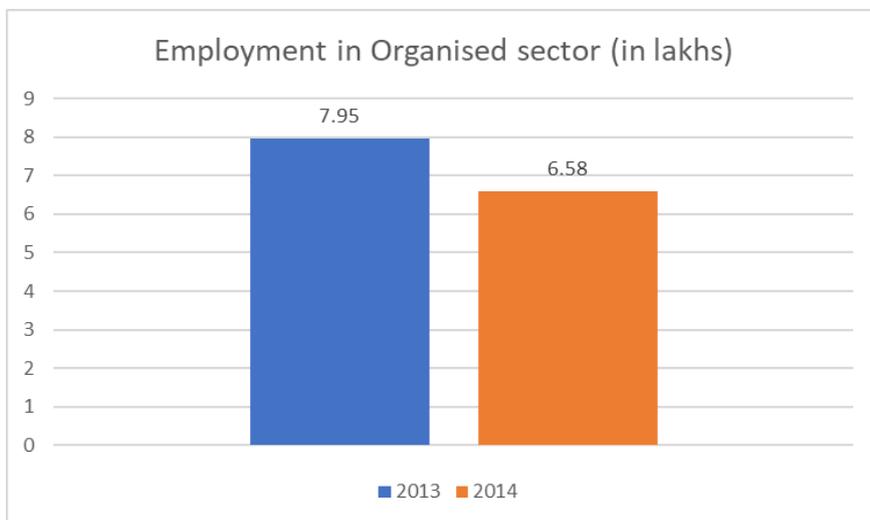
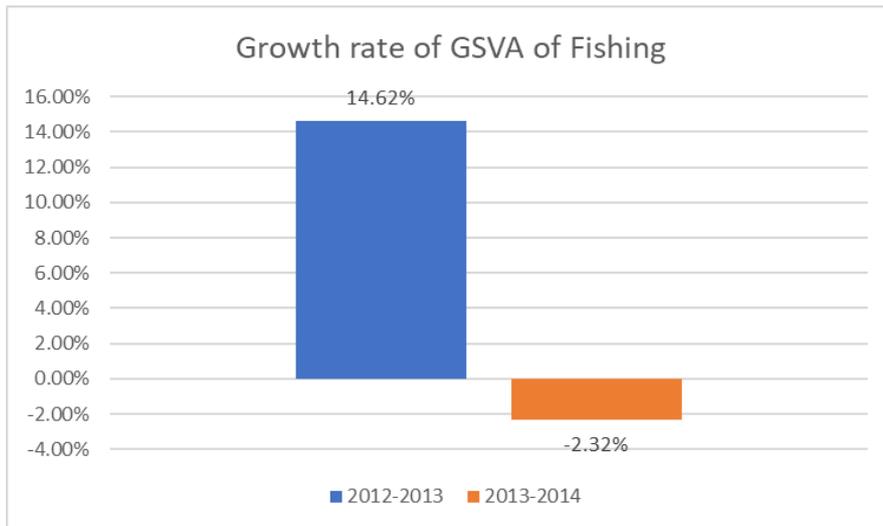
In addition to the physical destruction of monetary infrastructure, the available banking services coupled with digital means of payment inhibited the effective processing and use of remittances in the following days. This points to an even larger challenge in post-disaster economic rehabilitation: the very critical role financial inclusion and digital banking play in uninterrupted access to external financial aid. In the long term, strengthening banking networks in disaster-affected areas will improve the potency of remittances as a stabilisation tool.

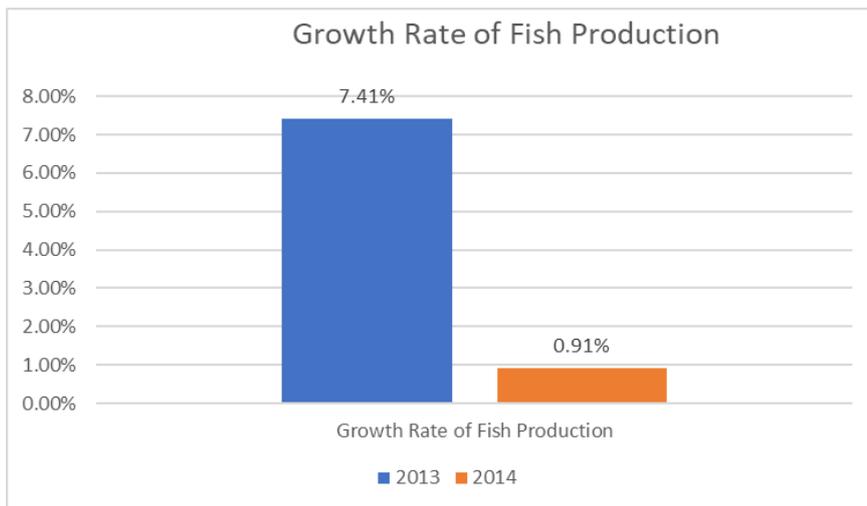
8.2.3 Economic Costs of Displacements

The economic loss due to displacement after Cyclone Phailin can be considered in two categories, that is, direct and indirect. The destruction of housing, public infrastructure, and livelihood assets represents direct losses, but long-term productivity loss, increased dependency on social welfare programs, and psychological impact on the displaced persons would fall in the category of indirect losses.

The highest costs of displacement were borne by households in marginalised communities. Dalit communities, landless labourers, and fisherfolk were disproportionately affected because their economic structures were fragile. Over 500,000 people were displaced, straining urban housing and basic services, thereby increasing the burden on state-sponsored relief programs. The economic theory of human capital depreciation is particularly relevant in this context. The displaced persons, especially the agricultural and skilled workers, lost their industry-specific skills because of long-term dislocation. The movement of labourers to new economic environments resulted in their employment in low-productivity sectors, causing overall economic inefficiencies. This is consistent with the Kuznets hypothesis, which postulates that disaster-induced displacement increases income inequality in the short run before any long-term recovery efforts can be initiated.

Besides, rebuilding all the infrastructures, which were very necessary and included roads, schools, and power supply networks, required a cost of INR 89,020 million (approximately USD 1.45 billion). Although the investments in this way prove necessary for long-term economic stability, they also create intense fiscal burdens on the government, potentially diverting funds from other developmental priorities. The Keynesian perspective on fiscal policy is that while disaster-related public spending can spur economic activity in the short term, dependence on government expenditure without parallel private sector investment for long periods will result in structural fiscal imbalances.





Due to Cyclone Phailin, the growth rate of GSV by fish production in Odisha fell by 16.94 percentage points, from 14.62% in 2012-13 to -2.32% in 2013-14. Similarly, the growth rate of fish production fell from 7.41% in 2013 to 0.91% in 2014, while employment in the organised sector fell from 7.95 lakhs in 2013 to 6.58 lakhs in 2014.

8.3 Cyclone Fani (2019)

Cyclone Fani struck Puri, Odisha, on 3 May 2019, with wind speeds recorded at 205 km/h and classified as an Extremely Severe Cyclonic Storm (ESCS). There was massive displacement, infrastructure destruction, and economic shocks, especially among fisherfolk and agrarian communities. Beyond immediate losses, it resulted in changes to income structures, labour market dynamics, remittance dependency, and the long-term resilience of the economy. The following sections look in detail at how it was impacted.

8.3.1 Household Income and Labour Market Participation

The economic disruptions from Cyclone Fani had significant effects in terms of income volatility and employment restructuring in affected communities. Given the impact of the cyclone on 1.65 crore people in 14 districts, along with more than 5 lakh houses, several households directly suffered immediate losses of income. Damages to fishing boats, agricultural fields, and small-scale industries cut local incomes and made a sizeable chunk of the affected population temporarily unemployed. The economic shock was most acutely seen in fisheries. Agriculture and informal trade, for whom the loss of boats and nets meant an indefinite halt in fishing activities; likewise, the agrarian community witnessed crop losses of 1.81 lakh hectares, rendering seasonal employment in the agricultural sector unavailable.

Labour market participation underwent significant changes following the cyclone. Several migrated to the urban centres of Bhubaneswar, Cuttack, and Surat for low-skilled jobs from Puri, Kendrapara, and Ganjam. The pattern of movement is said to well comply with the Harris-Todaro Model (1970), which says the migration decisions are more based on anticipated income differentials than employment certainty. Despite this, many forced migrants ended up in insecure, informal sector work, including construction and daily wage labour, with lower wages than their pre-cyclone incomes. Another theory that helps explicate why most of the displaced populations, lacking in skills or education, ended up in jobs that were low-wage and high-risk with a threat of job insecurity and bad working conditions is the Dual Labour Market Theory propounded by Doeringer & Piore 1971.

The cyclone also had gendered implications for the labour market response. Because many male household members migrated in search of work, there was a feminisation of labour in the villages affected by cyclone disasters. Women had to take up more responsibilities, especially in agriculture, fish processing, and small-scale trading. However, women's economic agency continued to be constrained by factors such as limited access to credit, restricted mobility, and dominant socio-cultural norms, which escalated household income insecurities. The longer-term effects of such disruptions highlight the fragility of income sources in climate-vulnerable regions, reinforcing the necessity for climate-resilient employment policies and skill diversification programs.

8.3.2 Role of Remittances in Economic Stability

The cyclone accentuated the critical role of remittances in bringing economic stability to affected households. According to the New Economics of Labour Migration (NELM) theory of Stark & Bloom (1985), migration acts as a household risk diversification strategy, and remittances help act as a shock absorber for household incomes. For many families caught up by the Fani episode, remittances from close relatives working in urban centres cutting across Gujarat, Maharashtra, and West Bengal remain the first significant coping mechanism helping households to face basic consumption levels, repair households, and make debt service amortisations.

The Permanent Income Hypothesis, first advanced by Friedman (1957), asserts households use remittances for short-term consumption; however, "remittances also act like an investment scheme." While the government report on Fani does not provide explicit information about the volumes of remittance inflows, economic theory suggests that households that received support from external financial sources faced lower income volatility levels compared to those that relied solely on local livelihoods. Many households

were using remittance earnings for reconstituting assets, purchasing essential commodities in disturbed local markets, and for health and education-related expenses. The reliance on remittances in post-disaster contexts also brings out spatial economic disparities since only households with pre-existing migration linkages benefit from these financial flows.

Though they have stabilising effects, remittances were not an equalising mechanism for all the affected families. Economic inequality, as suggested by the Kuznets Curve of 1955, often worsens before stabilising in disaster-affected regions as wealthier households—already integrated into migration networks—receive larger remittance inflows. Thus, families that had no migration ties remained disproportionately reliant on government relief measures, with slower income recovery and protracted economic distress. The cyclone, therefore, simply scaled up pre-existing wealth disparities, with the need for targeted financial inclusion policies to bridge these economic gaps.

8.3.3 Economic Costs of Displacement

In terms of economic costs, the displacement due to Cyclone Fani can be categorised into direct financial losses, indirect long-term economic impacts, and macroeconomic consequences. The loss was huge in immediate financial terms—more than 5 lakh houses destroyed, 1.81 lakh hectares of crops destroyed, and severe disruptions to transport and energy infrastructure. The loss of fishing harbours, market spaces, and primary roads further delayed economic recovery, while the costs of rebuilding essential services placed an enormous fiscal strain on the state government, prompting Odisha to seek financial assistance from the Centre.

Beyond the direct costs, displacement led to long-term economic disruptions, particularly in the labour market. According to the Theory of Structural Change, Lewis (1954) indicates that it is common for displaced workers to have difficulties finding employment in new sectors, especially if there are mismatches in skills. Such was the case for displaced fisherfolk and agricultural labourers who did not possess the skills required to gain access to high-paying jobs in cities. Many of these individuals found themselves in informal or casual wage labour, where they experienced lower earnings, less job security, and lower productivity.

The economic impacts of displacement also reverberated at the regional level. Large-scale migration to cities created temporary labour shortages in the non-affected coastal regions and increased wages for certain industries in those areas but oversaturated labour markets in urban centres, further depressing wage rates for informal labourers. Also, the failure of community-based risk-sharing mechanisms increased household economic vulnerability as

it broke the usual support networks for forced migrants. Long-term dependency on government relief and rehabilitation programs further emphasises the economic fragility of disaster-prone communities, pointing towards climate-resilient employment strategies and financial safety nets.

The cyclone further highlighted substantial policy voids in addressing climate-induced displacement. There were no well-defined skill development programs, financial inclusion mechanisms, or credit schemes that depended on remittances to aid displaced households' recovery processes as an institution over the long run. The new frameworks of disaster responses need to integrate climate-resilient investments in infrastructure, livelihood diversification, and more inclusive access to financial services for minimising severe economic shocks triggered by such calamities.

8.4 Super Cyclone Amphan (2020)

Super Cyclone Amphan, which landed on May 20, 2020, was one of the strongest cyclones to hit the Bay of Bengal region in recent times, with wind speeds exceeding 185 km/h. Though West Bengal bore the brunt of the cyclone, Odisha suffered extensive collateral damage, particularly in its coastal districts, where thousands of households, livelihoods, and critical infrastructure were affected. Beyond direct destruction, the economic consequences of the cyclone spilt into long-run shocks in terms of income disturbances, labour market shocks, remittance dependence, and large dislocation-related expenditures. The impacts of these factors are analysed using the theories underlying the economics as described below.

8.4.1 Household Income and Labour Market Participation

The economic impact of Amphan was felt disproportionately across occupational groups, with daily wage earners, fisherfolk, and small-scale agricultural workers suffering the most severe income shocks. The destruction of houses, fishing boats, markets, and farmlands led to immediate unemployment and income losses, disrupting household financial stability. In Odisha, over 44 lakh people across 10 districts were affected, with 2.8 lakh houses damaged. It exposed the economic vulnerability of the coastal fisherfolk and agrarian workers whose livelihoods are precarious and normally aligned with environmental stability.

The cyclone also led to a form of forced migration, as most of the workers shifted to urban and peri-urban areas in search of employment. According to the Harris-Todaro Model of Migration, published in 1970, this phenomenon occurs because of expected income differentials rather than actual guaranteed employment. Many of the migrant workers migrated to Bhubaneswar, Cuttack, and Kolkata, taking up casual jobs, construction, and

miscellaneous services. However, in such a time of pandemic as COVID-19, the other challenges within urban agglomerations squeezed economic opportunities, making room for heavy underemployment and wage suppression within the informal economy as well.

Workforce participation trends adjusted, particularly among women who had to take on more domestic responsibilities and economic burdens. With male migration increasing after Amphan, women have been forced to accept informal secondary jobs in agriculture, home-based work, and petty trade, which have remained low-paid and even less regular forms of employment, reinforcing gendered vulnerabilities in economic terms. A proper understanding of these events can be rendered through the Dual Labour Market Theory by Doeringer & Piore (1971), where migrant labour tends to get absorbed mainly in the low-wage secondary, informal sectors with very little scope for upward mobility.

The employment shocks resulting from Amphan were not district-specific. Economies with diversified non-agricultural employment recovered faster, whereas economies that are heavily dependent on fishing and coastal trade took much longer to recover. Households that had other sources of income, such as remittances, government relief, or micro-enterprise opportunities, recovered faster than those solely dependent on primary-sector livelihoods.

8.4.2 Role of Remittances in Economic Stability

As in other climate-related disasters, remittances played a crucial role in cushioning the income shocks caused by Amphan. According to the New Economics of Labour Migration (NELM) (Stark & Bloom, 1985), migration serves as a household risk-diversification strategy, wherein remittance inflows act as an informal financial safety net during economic crises. After Amphan, the families with migrant members working in industrial and service hubs like Surat, Mumbai, and Hyderabad relied heavily on remittance income to cover all essential expenses, rebuild homes, and supplement lost earnings.

According to the Permanent Income Hypothesis by Friedman (1957), households that receive regular remittances are more likely to maintain stable consumption patterns even with income volatility. Indeed, however, the COVID-19 pandemic disturbed interstate migration flows and remittance channels, which would have softened the impact of income shocks. Remittances from Odisha's workers delaying return migration by temporarily shutting down industrial activities only increased the reliance on government aid and relief efforts coming from communities.

The distributional impact of remittances was highly uneven. Households that had pre-existing migration linkages received steady remittances, while those without the members who had sent remittances had more extended recovery times and greater burdens of debt. The Kuznets Hypothesis (1955) argued that economic inequality first increases and then stabilises as the post-crisis economies recover. That was seen with Amphan in the aftermath because well-off households, who were able to have members migrate abroad for work, benefitted the most, which accelerated wealth disparities among affected regions.

Though remittances could offer temporary financial relief, they were not a long-term means of reviving the economy. Households that invested remittance earnings in rebuilding productive assets—for example, buying fishing gear, restoring farmlands, or investing in small businesses—were able to recover financially much faster than those who spent most of their remittances on consumption. The role of state intervention in providing financial assistance and skill-development programs became critical in bridging these economic gaps.

8.4.3 Economic Costs of Displacement

The costs of dislocation by Amphan were multilateral: direct monetary losses, indirect long-term economic effects, and fiscal burden on the state. Housing, public infrastructure, and economic assets were severely damaged, and the government estimated that over ₹20,000 crore were lost due to the cyclone. The damage was the costliest in fisheries, agriculture, and housing. Displaced households lacked adequate monetary resources to recover.

The Structural Change Theory (Lewis, 1954) explains the difficulties of displacement, especially in the case of workers from primary sectors, such as fisheries and agriculture, who cannot easily enter secondary or tertiary employment because of a lack of skills. Most of the displaced fisherfolk and agrarian workers did not have the technical skills to integrate into urban job markets and, therefore, were relegated to long-term economic precarity and downward occupational mobility.

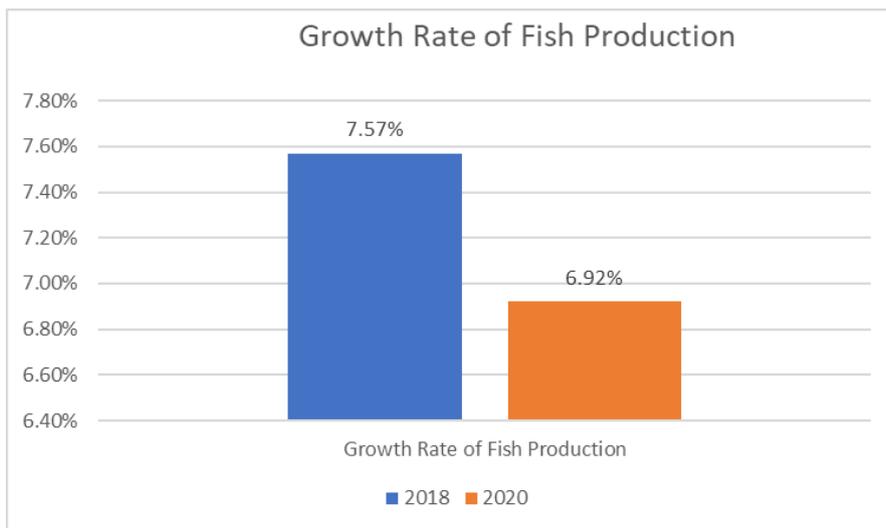
Regional labour market distortions were also an outcome of displacement. Outmigration of the working-age population from the coastal regions meant that non-affected rural regions experienced labour shortages and temporarily elevated rural wage rates. On the other hand, displaced individuals pouring into the urban labour market meant that wage compression occurred in informal construction and service sectors where the upsurge in labour supply depressed the daily wage.

Beyond household losses, the cyclone imposed a huge fiscal burden on the state government, requiring massive relief expenditures and rehabilitation programs. The period of recovery

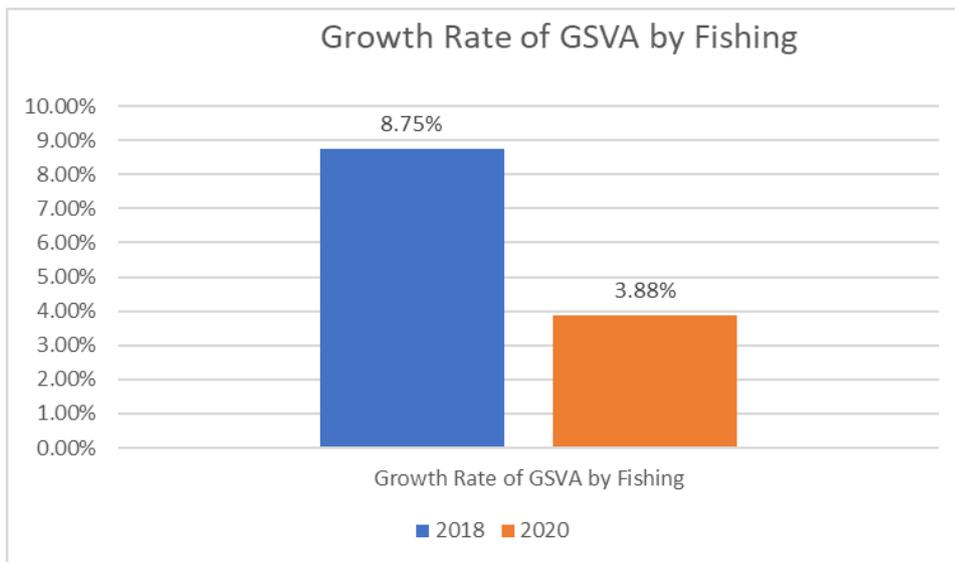
from the Amphan incident shows an increase in dependence on public welfare programs such as food security programs (PDS), cash transfers, and employment guarantee programs (MGNREGA). However, bureaucratic delays and inefficiency in relief delivery resulted in unequal distribution of relief, leading to extended periods of economic stress among affected households.

The long-term costs of displacement extended beyond monetary losses. As communities fragmented under forced migration, social capital erosion further weakened the informal risk-sharing mechanisms that are so crucial for traditional livelihoods. It thus became more difficult for households to rebuild their economic foundations. Displaced families faced permanent shifts in their economic trajectories because post-disaster migration often resulted in multi-generational shifts away from traditional livelihoods.

Cyclone Fani (2019) and Cyclone Amphan (2020)—combined statics



Due to the occurrence of two cyclones within a year, that is, Cyclone Fani (2019) and Cyclone Amphan (2020), the growth rate of fish production fell from 7.57% in 2018 to 6.92% in 2020, while the growth rate of GSVA by fishing fell from 7.57% in 2018 to 3.58% in 2020.



8.5 Severe Cyclonic Storm Dana (2024)

Cyclone Dana, which struck land near Bhitarkanika in Kendrapara district on 24–25 October 2024, was a severe cyclonic storm with high-speed winds, torrential rainfall, and significant coastal flooding. It was not the most extreme in terms of wind speed, but it was the most severe disruption to livelihoods, infrastructure, and economic stability, especially for fishing-dependent and agrarian communities. Damage will not be immediately visible, although the cyclone will lead to long-term reorganisation of local economies, transformations in labour-market participation, and further financial frailty for victimised populations.

8.5.1 Household Income and Labour Market Participation

Cyclone Dana threw the economy of various sectors out of kilter, more significantly impacting daily wage earners, fisherfolk, and small farmers. The first impact is invariably a blow to employment and earnings, following damage to physical capital and interruption to market relations as in past cyclonic catastrophes that occurred in Odisha. According to the memorandum, fisheries, agricultural fields, and small-scale trading establishments suffered very severe damage with a corresponding, sudden collapse of household incomes.

The destruction of boats, fishing nets, and coastal markets entirely stopped all fishing activities along the Kendrapara and Jagatsinghpur coasts. It agrees with the Theory of Labour Market Segmentation, which states that workers in primary sectors, such as fishing and agriculture, have relatively lower employment mobility than workers who are in secondary or tertiary sectors. Unlike workers in industry or services, fisherfolk cannot easily transition to alternative employment, leading to a prolonged period of income stagnation.

The destruction of inland fishing infrastructure further deepened the crisis, forcing many to seek alternative, often lower-paying, work in unorganised urban sectors.

For agrarian workers, the cyclone resulted in extensive crop damage, particularly in paddy fields, which form the backbone of Odisha's rural economy. Standing crops were destroyed. Thousands of small-scale farmers who had obtained seasonal loans to cultivate the crop remained indebted. The linkage between agriculture and fisheries was affected too: floodwater carried saline into arable lands, degrading their productivity for years ahead. The Environmental Kuznets Curve predicts that at an initial level of development, environmental degradation deteriorates before becoming stable. However, the very low adaptive capacity of rural Odisha means that these environmental shocks translate directly into economic distress without adequate buffering mechanisms.

In terms of these economic shocks, changes in the labour market were reported as people largely moved to the urban centre in large numbers. The Harris-Todaro Model of Rural-Urban Migration, 1970, explains this by saying that the workers move to anticipate higher wages despite uncertain employment immediately. The memorandum reveals an increased number of people migrating to Cuttack, Bhubaneswar, and Kolkata for work in construction, transportation, and domestic services, where the displaced workers sought jobs. These sectors, however, were informal and employed with uncertain prospects, low wages, and no social security.

The labour market effects of Cyclone Dana were also gendered. With male outmigration rising, women in affected households took on additional economic responsibilities, engaging in low-wage agricultural labour, petty trade, and home-based work. However, lack of financial resources and social constraints limited their access to stable employment, further deepening economic inequalities.

8.5.2 Role of Remittances in Economic Stability

Like the previous cyclones, remittances helped the households cope with the loss of income and dislocation. Pre-existing migration ties helped households raise funds from their relatives who are working in other states, such as Gujarat, Maharashtra, and Tamil Nadu, where most Odia workers work in industries and services. According to the New Economics of Labour Migration (NELM) (Stark & Bloom, 1985), remittances are a household risk-management strategy, providing an alternative income stream during economic downturns.

The Permanent Income Hypothesis, by Friedman (1957), postulates that households with stable inflows of remittances can sustain long-term consumption even during crises.

However, in the previous cyclones, the distribution of remittances was not uniform across households, which further widened income disparities. Households without migrant workers were more reliant on relief measures, which were often delayed and inadequate to meet full recovery needs.

The memorandum highlights the fact that most households were rebuilding homes, purchasing food supplies, and paying outstanding debts from remittance inflows. Conversely, other families invested the earnings from remittances into new economic activities such as microenterprises, poultry farming, and small-scale retail trade. According to Taylor, 1999, the multiplier effect of remittances means that income earned from remittances could contribute to spillover benefits to the local economies by enhancing the demand for goods and services. However, it was again constrained in the case of Dana-affected areas, where the overall economic downturn limited the purchasing power.

In some regions, the memorandum observes that remittances contributed to rising local inflation, particularly in essential commodities. This is exactly in line with the Dutch Disease Hypothesis, which reflects that large remittance inflows reduce local labour force participation as households depend less on primary sector employment. Even though this effect was not uniformly observed, it does raise some concern about economic dependencies on external income sources.

8.5.3 Economic Costs of Displacement

The economic costs of displacement following Cyclone Dana are multilayered, involving direct monetary losses, indirect economic dislocations, and increased fiscal burdens on the state. Housing, transport networks, and coastal infrastructure destruction have involved significant financial loss, and there is a pressing need for massive government relief measures. The estimated total economic damage runs into thousands of crores, with fisheries, agriculture, and small businesses being the worst affected sectors.

Structural Change Theory by Lewis (1954) can account for long-term displacement costs, especially when workers are struggling to shift from one sector to another. Many of the displaced fisherfolk and agrarian workers experienced a lack of congruence in skills, making it difficult for them to gain employment stability in urban economies. The memorandum further shows that the majority of the number of displaced individuals was absorbed in the informal sectors, whose jobs were low-paying and insecure.

Another indirect, or hidden, cost of displacement was the loss of social capital. Relocations severely disrupted community-based informal lending networks and labour-sharing

mechanisms, which historically have served as informal safety nets. By disturbing these community-based support structures, increased household financial vulnerability pushed more families toward high-interest loans to ensure their survival.

The state government's response was concentrated on emergency relief, financial support, and infrastructure rehabilitation. Yet, according to the memorandum, there were difficulties in the delivery of relief assistance, particularly to hard-to-reach coastal villages, whose access was delayed. The recovery of affected households is long-term, depending on continued policy interventions that include climate-resilient housing, financial inclusion measures, and skills training programs for displaced workers.

9. Limitations

Despite its thorough deliberation, this study has limitations that must be stated for this research to give proper consideration to its findings. Among them is reliance on secondary data sources—government economic surveys, migration reports, and disaster assessment records. These sources provide great macroeconomic insight but are likely to miss out on nuances such as the informal labour dynamics, localised economic fluctuations, and unrecorded financial transactions all contributing to the economies in post-disaster environments. This study also lacks longitudinal data, that is, monitoring the same household over time to understand the long-term economic recovery. The study bases its results on cross-sectional data points sampled from different occurrences of cyclones and is not possibly reflective of how evacuees cope with economic adversity over the long term. An added limitation of the study is that it looks strictly at economic effects, which are indispensable but do not include larger effects of migration affecting the social-psychological and cultural characteristics of displacement, including social dislocation, mental health-related stress, or community displacement-related distress. These non-economic aspects, though indirectly related to economic stability, are beyond the scope of this paper. In addition, the study assumes a degree of uniformity in economic responses in different coastal districts of Odisha and generalises its findings to the entire state. However, there are huge differences in local governance efficiency, access to financial relief, and community mechanisms for resilience across regions, and these might translate into differences in the degree of economic disruption and recovery in these different regions. The study does not consider spillover effects, for example, out-migration impacts on city labour markets, impacts of compression of wages in receiving cities, or strain on public services due to increased population inflows. Although these are important secondary effects, they would

also need empirical evidence to gauge the broader economic implications of climate-related migration.

10. Conclusion

The economic ramifications of climate-induced migration among fisherfolk communities in coastal Odisha underscore the complex interplay between environmental shocks, labour market dynamics, and household economic resilience. This study has demonstrated that climate disasters—such as Cyclones Phailin, Fani, Amphan, and Dana—disrupt traditional economic structures, leading to substantial shifts in income patterns, employment participation, and regional economic stability. The case studies analysed here thus suggest that these communities experience cyclical economic distress, characterised by direct loss of productive assets, prolonged instability in incomes, and forced migration into low-paying, insecure urban labour markets. A key finding of this research is that climate-induced migration has asymmetric impacts on household incomes and labour market participation.

Although some of the migrants succeed in finding a place within the urban economies, most enter precarious, informal employment with lower earnings and little possibility of upward mobility. The study confirms the Harris-Todaro model's claim that rural-to-urban migration does not necessarily ensure improvement in economic status; it instead tends to worsen vulnerability by pushing displaced workers into sectors with little job security. The feminisation of household economic burdens, as in the post-disaster scenario, highlights the gendered implications of climate-induced migration further. Women left behind to support households are driven into informal labour markets under the conditions of financial precarity that reinforce systemic inequalities. Remittances have turned out to be a critical yet insufficient mechanism for economic stabilisation. Although they temporarily cushion the blow of lost incomes, their long-term effectiveness is low because of the low wages of migrant labour markets and infrastructural constraints in disaster-affected areas.

The research supports the New Economics of Labour Migration (NELM) theory as it explains that while remittances are a counter-cyclical economic buffer, they do not bring about sustainable growth or economic resilience without productive reinvestment. Moreover, unequal access to remittance networks also widens economic disparities because households not connected to migrants are left significantly dependent on state welfare and emergency relief programs. The economic costs of displacement do not only amount to direct monetary losses but also structural disruptions in regional labour markets, increasing fiscal burdens for the state, and long-term depreciation of human capital. The available evidence seems to support climate-induced migration triggering the erosion of skills among

displaced fisherfolk and agricultural workers, thus being consistent with the theory of human capital depreciation. As this community is thrown into alien economic sectors, it will face huge barriers in skill adaptation and wage parity, and it will continue to stagnate economically for a long time.

Besides, the financial costs of periodic climatic catastrophes that come in the form of high public expenditures for rehabilitation and rebuilding of infrastructure severely hinder long-term developmental agendas. It speaks of the imperatives of much-needed policy actions towards making economically more resilient climates. Any medium-run to long-run adaptation framework is only going to succeed if skills development programs can be expanded to involve more numbers of people while strengthening financial inclusion. Remittance inflows have the potential to become a stabilisation mechanism in a post-disaster economy if channels to formal sectors through better banking infrastructure and more widespread digital services could be offered. Finally, climate-induced migration in coastal Odisha is not just an environmental issue but one that remains deeply economic in dimension, thus requiring the engagement of multilevel policy solutions. The results of this study suggest a need for proactive economic planning that builds livelihoods beyond disaster relief, regional economic integration that helps to break cycles of displacement and poverty, and addresses structural vulnerabilities. Such efforts to address the above challenges require coordinated action between government agencies, international organisations, and community stakeholders to ensure that migration becomes a strategy of empowerment rather than a last resort.

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The Burden of Fuel Taxation: Analysing Petrol Prices and Economic Impact in India

Ahintara Manivannan, Aanya Gupta and Radhika Bajaj

Abstract

Petrol is a key driver of India's economy, affecting inflation, transportation, and the environment. Despite falling global crude prices, domestic fuel costs remain high due to heavy central and state taxes. This paper analyses petrol pricing in Delhi, Mumbai, Chennai, and Kolkata, examining tax structures, transportation costs, and administrative policies.

The study explores whether high fuel prices encourage public transport use, reducing pollution. It also assesses how uniform taxation impacts fuel consumption and regional economic growth. Additionally, the paper evaluates the potential benefits and challenges of bringing petrol under GST to stabilize prices and enhance competition.

Balancing affordability, economic efficiency, and environmental concerns in fuel taxation is essential. This paper offers recommendations for policy reforms to achieve that goal.

Research Methodology

1. Research Design

The present study is designed to use a qualitative research approach with secondary data analysis to study the variations in state-level petrol taxation in four major Indian cities, that is, Delhi, Mumbai, Kolkata, and Chennai. It will study the political and economic factors behind the differences in taxes in scope and breadth. It will adopt a review of the literature, government reports, and international case studies for a balanced perspective.

2. Data Collection

The study uses secondary data from a number of credible sources, which include:

(a) Government and Regulatory Reports:

- Data provided by the Ministry of Petroleum & Natural Gas, PPAC, and state governments' portals.
- Official pricing policy and taxation mechanisms from Indian and international regulatory bodies.

(b) Academic Research:

- Peer-reviewed journal articles and economy studies related to fuel taxation, inflation, and environmental impacts.
- Comparative studies of fuel pricing models across different countries.

(c) Media Reports and Expert Analyses:

- Insights coming from credible policy and economic-research institutions.
- Reports from national and international media outfits commenting on economic and policy issues.

3. Data Analysis

The present study employs SDA to analyze data from multiple sources and explore trends on petrol price, tax structures, with economic and environmental consequences. Data are synthesized for a concise identification of patterns, correlations, and possible policy directions.

4. Validity and Reliability

Only data collected from reputable sources, peer-reviewed journals, and accurate online media are needed for great confidence and reliability. This study strives to avoid pick-and-choose data selection. It will also avoid selective inclusion and exclusion of views and opinions in order to provide an objective and unbiased view of the petrol taxation policy.

5. Ethical considerations

This research adheres to strict ethical standards, basing criticism on credible and transparent sources. Thus, the work is undertaken without personal bias and political manipulations, giving evidence-based rationale for every conclusion. This paper does not selectively present data to mislead or support a political agenda.

Introduction

Petrol is an essential commodity in the modern economy. It highly influences economic growth, living costs, and environmental sustainability. Most major industries are highly sensitive to fluctuations in the price of petrol as almost all depend on it to run their business operations. Important sectors such as transport and petrochemicals are significant multipliers of energy price changes affecting the economic stability. In developing countries like India—home to one of the densest road networks globally—rapid urbanization

and industrialization have further cemented petrol's role in sustaining mobility and production.

Petrol prices in the state of India vary depending on various influencing factors, which may include tax policies, logistical expenses, and different governance strategies. Fluctuations impact consumption patterns, urban lifestyles, and environmental health. With this in view, the paper attempts to present a careful analysis on petrol pricing in the Indian market, exploring economic and social implications.

Based on four major metropolitan cities—Delhi, Mumbai, Chennai, and Kolkata—it explores petrol pricing patterns, taxation policies, and logistical costs. It further delves into the broader impacts of these factors on daily life and proposes a unified tax structure across states to analyse potential shifts in consumption behaviour and the resulting socio-environmental effects.

Calculation of Petrol Prices in India

The final retail price of petrol consists of three major components: the base price, central excise duty, and state tax (value-added tax or VAT). Only the base price and the central excise duty are relatively constant; the VAT varies drastically between the states. Every state government determines its own rates of taxation.

Elements
Base Price
Freight
Prices charged to Dealer
Add : Excise Duty
Add : Dealer Commission
Add : VAT (Including VAT on Dealer Commission)
Retail Selling Price

The rate of VAT may be charged on several elements that include the base price, freight charges, excise duty, and dealer commission on petrol and diesel. This is because State governments rely majorly on revenues from petrol taxes. Thus, the reduction in VAT cannot go down without them affecting their revenue streams.

Government policies determine the fuel prices, and any change in taxation structures can have far-reaching implications for consumers and the economy at large. This paper explores these aspects, discussing how policy interventions can lead to more equitable pricing while ensuring economic stability.

International Prices of Crude Oil (Indian Basket), Petrol and Diesel



Despite a decline in crude oil prices, the retail prices in India are not going down.

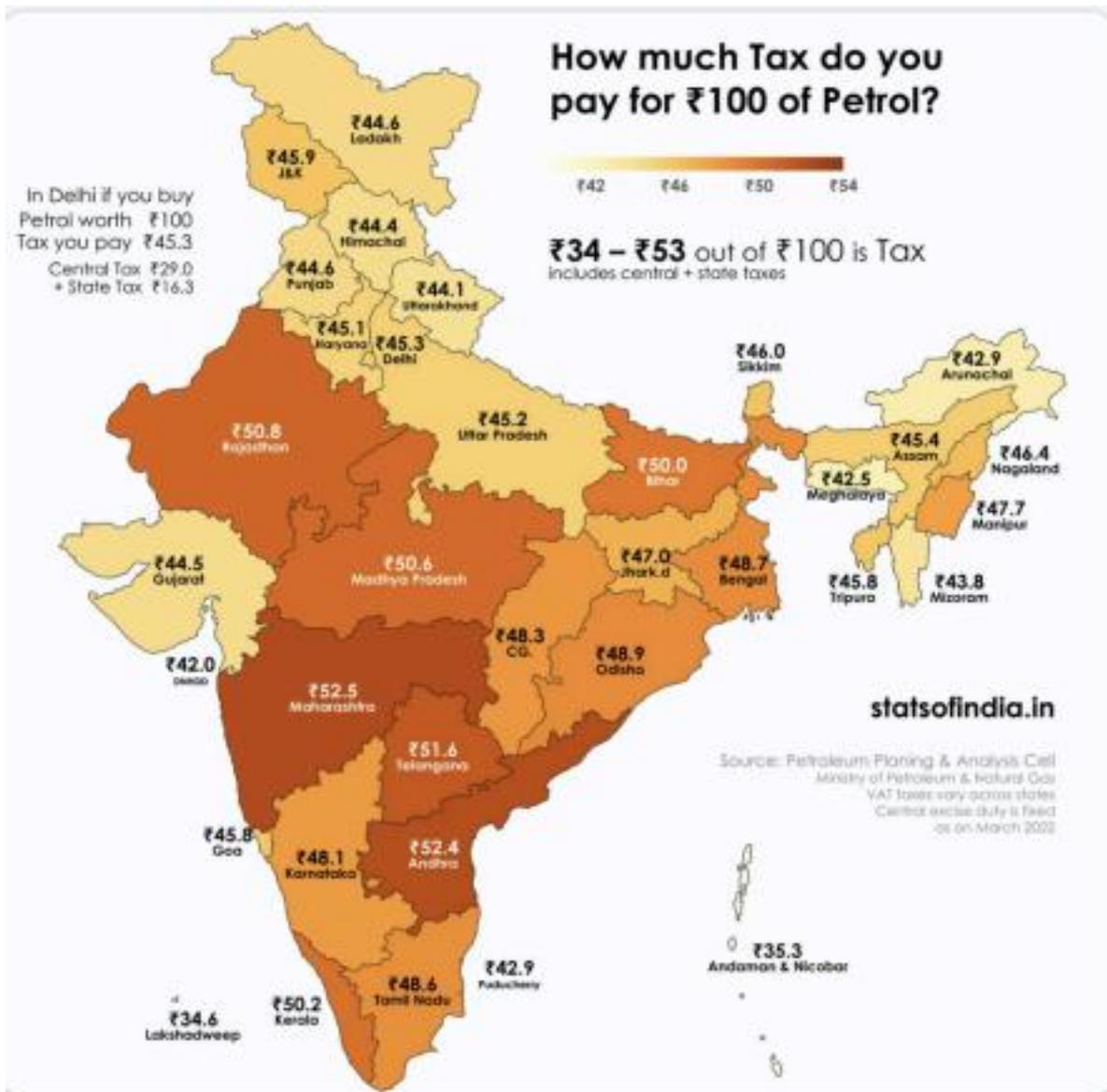
A business standard article released on Sep 13 2024 reads **Crude oil prices drop by 21% since March, but fuel costs continue to sting.**

The Proportion of taxes in the composition of petrol prices in India is exorbitantly high. For most states, taxes make up for more than or almost half the price of petrol is collected as tax.

Now that we know how the petrol prices are calculated we can look at the data of this composition of petrol prices in these four cities.

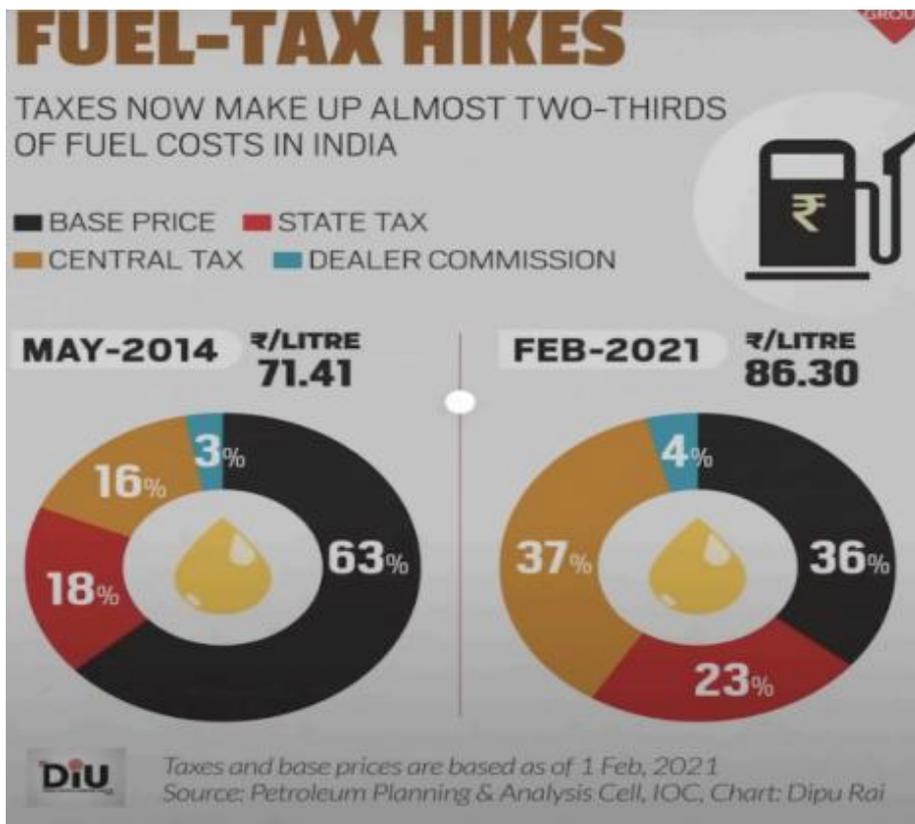
In Delhi, if you buy petrol worth 100 rupees you pay 45.3 rupees as tax.

This includes Mumbai (Maharashtra) at Rs. 52.5, Chennai (Tamil Nadu) at 48.6 rupees and Kolkata (West Bengal) at 48.7 rupees. In seven states half of the price of petrol is collected as tax. This includes Maharashtra at Rs. 52.5, Andhra Pradesh at Rs. 52.4, Telangana at Rs. 51.6, Rajasthan at Rs. 50.8, Madhya Pradesh at Rs. 50.6, Kerala at Rs. 50.2 and Bihar at Rs. 50, according to Stats of India.



From this we can derive that due to the amount of taxes in the price of petrol, that is, excise duty and VAT, imposed on petrol by the government there is an increase in the overall price of petrol.

In May 2014 the base price of petrol constituted 63% of the total price. In contrast, in Feb 2021, the base price was reduced to 36% only and there was a significant increase in the taxes. In 2021, almost 60% of the price of petrol consisted of taxes.



Does this increase in taxes reflect a rise in international oil prices?

The simple answer is no. At first glance, it might seem like prices have gone up, which is true when compared to 2020 or 2019. But they are still not as high as they were in 2014, a time when taxes were much lower. This shows that the increase in taxes isn't just about oil prices going up globally. Other factors, like government policies, revenue needs, or economic conditions, also play a role. So, while oil prices do have an impact, they don't fully explain why taxes have been raised.

To better understand the whole petrol pricing framework in India it is important that we talk about deregulation. The government had periodically intervened in the retail prices of fuel, in 2010 (Dr Manmohan Singh) deregulated the price of petrol and gave liberty to Oil Marketing Companies to fix the price of petrol based on the calculation of their cost and profit. Further deregulation of diesel was implemented in 2015 (Narendra Modi). The rationale of deregulation is to manage the cost of the oil prices by retailers like BPCL, Indian Oil Corporation, HPCL as these companies were suffering due to losses and the compensation from the government did not reach them on time. The deregulation of petrol prices in 2010 and diesel prices in 2014 gave companies the rights to revise the prices. Despite these changes made in the system, the oil prices are at a skyrocketing level, and the

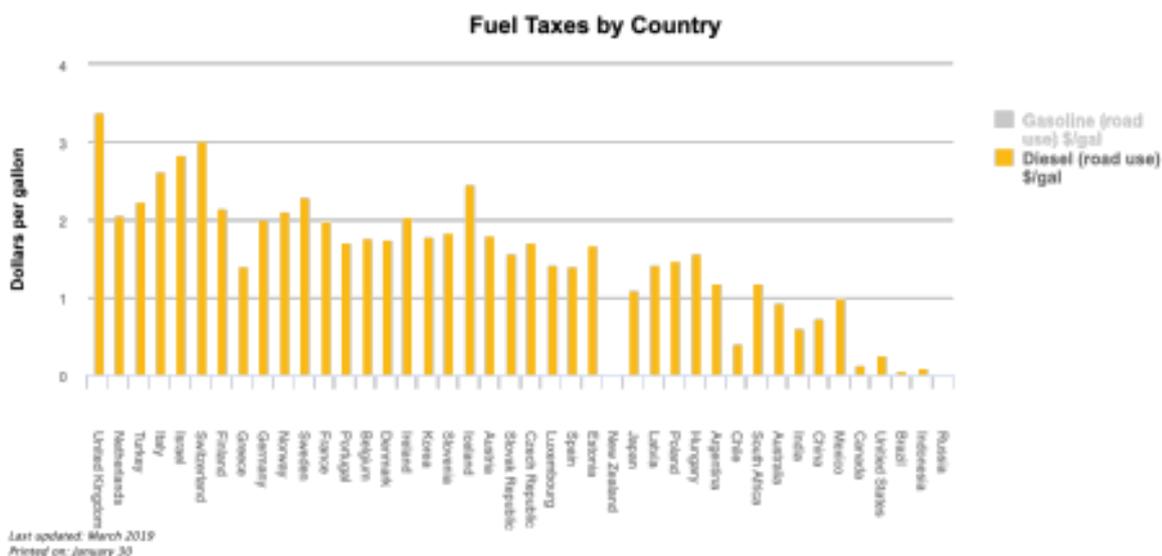
progressive promises made by the political parties during the times of election are nowhere helpful at this critical juncture.

Then the question becomes is this price hike, as claimed by the centre and state governments, due to a hike in international oil prices. We can observe that there is always a rise in domestic prices with the rise in international prices. But the same is not true when there is a decline in international prices. For this, we need to understand that the oil prices are made up of three factors. First, Processing and refining costs of Crude Oil. Second, there is state and central tax to be considered and thirdly, a dealer's commission.

The methodology of prices shows the various costs involved in the production of fuels from the initial stages to the final stage. Petrol and diesel are refined and processed from the crude oil and it is distributed by the retailers in the final stage. The cost involved in the initial stage of processing, refining and freight charges of petrol come at the base price of Rs 30.09 (April 2021). The Central excise duty is Rs 36.47, the state duty is Rs 20.96, the dealer commission is Rs 3.65. and the final retail price is Rs 91.17 which includes a major portion as tax. Although the base price was high, the retail price was comparatively low in May 2014.

Thus, this shows that an increase in the prices of petrol is not always due to an increase in the international prices of oil but rather due to taxes. This results in the exploitation of the Indian tax payer. If we compare this to the position of other countries we see a sharp contrast.

According to the US department of energy, this is the taxes paid on fuel by different countries.



Since the rise in fuel prices in India isn't directly linked to international oil prices, it's important to look at what's actually causing it. The main reason state governments aren't lowering taxes—and in turn, petrol prices—is that they depend heavily on these taxes for their revenue. Across India, fuel taxes make up a big part of state budgets. Cutting them would mean a major loss of revenue, which could impact spending on things like infrastructure, healthcare, and education. So, even if global oil prices fluctuate, state governments keep fuel taxes high to maintain financial stability and fund public services.

How does the government get away with it then?

The government manages to sustain high fuel taxes without facing significant backlash due to the way elections and voter demographics function in India. One key factor is the demographic composition of the electorate and the role of welfare measures in securing voter support. During election seasons, political parties often engage in the distribution of goods, subsidies, and other benefits—commonly referred to as "freebies"—as a means to strengthen their voter base. To secure votes, parties often provide goods, cash transfers, and other benefits to the public, creating a loyal voter base. These distributions, which take place right before elections, give the impression that the government is actively working for the people. However, these large-scale giveaways come at a high financial cost. Once the elections are over, the government looks for ways to recover the money spent, and one of the most effective ways to do this is

through taxation—fuel taxes being a key source of revenue. This creates a cycle where pre-election benefits are offset by post-election tax hikes, allowing the government to maintain financial stability while still appearing to prioritize public welfare. As a result, taxation policies, particularly on essential commodities like fuel, are often influenced by political strategies rather than purely economic considerations.

Politics of Freebies and Fuel taxation: Political and Economic Viewpoint

Political parties in India have utilized free cash, goods, and even subsidies during election periods. Such measures may create a loyal voter base but simultaneously impose a significant financial burden on the government. In order to offset the costs of these incentives during elections, governments often depend on indirect taxation, particularly on essential goods such as petrol and diesel (Mukherjee & Badri, 2021).

One such major independent source of income for India's central and state governments is fuel taxation. According to the Petroleum Planning and Analysis Cell (PPAC, 2022) fuels taxes including central excise duty and state value added tax VAT accounts for nearly 60%

of the retail price of petrol. When the world oil price lowers, the government has a habit of increasing domestic petrol prices alongside taxation rates which results in revenue loss for other sectors. This allows the government to compensate revenue loss from other sectors by adjusting taxes. High taxes help the government raise money that is often used in welfare and election incentives (Subramanian, 2020). This ultimately results in a recommendation imbalance, as the taxes impose inflation along with an increase in transportation costs and living costs for citizens (Rao & Singh, 2023).

Other reasons for the regional bias in pricing across states is the VAT differentials. As an example, the price of petrol in Mumbai is always on the higher side of the spectrum when compared to Delhi due to VAT collection in Maharashtra which is above 25% in addition to around 19% in Delhi (Indian Oil Corporation, 2023). These regional differences in pricing are detrimental to economic activities and especially to the logistics and transportation sector which depends on fuel significantly. Further, the operational costs for businesses increases inflation, which helps the negative scenario that disproportionately affects these lower-income households (Bose, 2021).

Further, there is little consensus on the impact of high taxation of fuel on the environment. Expensive fuel will, as some studies indicate, increase the use of public transport and lower emissions (Sharma & Gupta, 2022). However, this assumption fails to consider the lack of public transport systems in most Indian cities, which compels the middle class to use private cars even when fuel is costly. At the same time, while it is suggested that high taxes would increase the use of electric vehicles (EVs), the take up

is very slow because of the inadequate EV charging stations and high prices of EVs in the initial phase (Sridhar et al., 2023).

One possible policy change is integrating petrol into the Goods and Services Tax (GST) which can bring about a single price regime in the country and mitigate price fluctuations. On the other hand, state governments are often unwilling to give up fuel tax collection as it occupies a bulk share of their revenue sources (Aggarwal & Tiwari, 2023).

Imposition of GST on petrol would necessitate a supplementary compensatory mechanism to be crafted for the states in order to sidestep the revenue consequences and make sure that the fuel is inexpensive for consumers.

Impacts of Different Petrol Prices

The high prices of petrol in India are mostly due to the heavy taxes imposed on it. The actual cost of crude oil is much lower than the final price consumers pay, but the combination of central excise duty and varying state-level VAT significantly inflates the price. This creates disparities in petrol rates across states, affecting everything from transportation costs to consumer spending habits. Consumers are left struggling with an ever-increasing financial burden while businesses, particularly in logistics and manufacturing, experience rising operational costs. However, despite the increasing prices of petrol and the resulting higher cost of goods and services, wages and salaries have not seen a proportional rise, exacerbating inflation and reducing the purchasing power of the common man.

As of 13th January 2025, petrol prices in Chennai, Delhi, and Mumbai are Rs.101.23, Rs.94.77, and Rs.103.5 respectively. The primary reasons for these variations are differences in VAT, logistical costs, and dealer commissions. While these differences may seem minor, they have a significant impact on daily life. The cost of living is directly influenced by fuel prices, as higher transport costs lead to increased prices for goods and services. This affects everything from grocery prices to the cost of public transportation, putting an even greater strain on middle-class and lower-income households. With stagnant income levels, families are forced to make difficult choices, cutting back on essential expenses to accommodate their growing fuel budgets.

Inflation due to rising petrol prices reduces consumers' purchasing power. Transportation costs increase, which raises the operational expenses for businesses, and these costs are then passed on to consumers. For instance, the distance between Chennai Central railway station and Marina Beach is 4.2 km, whereas the distance between New Delhi railway station and India Gate is 5.2 km. Even though metro services are available in both cities, the fares for Rapido in Chennai are Rs.106 for

bikes and Rs.156 for autos, whereas in Delhi, the charges are Rs.52 for bikes and Rs.89 for autos. While petrol prices are not the only reason for this gap, they definitely play a role in determining fare structures and overall transportation costs. Over time, such differences widen economic disparities between states, making it more expensive for people to live and work in certain cities.

The gap in petrol prices across different cities has also led to the emergence of a petrol mafia. Traders buy fuel from regions where it is cheaper and sell it in areas where prices are higher, making huge profits. This black-market trade not only distorts fair pricing but also leads to revenue loss for the government. Additionally, petrol adulteration is a common issue in such activities, resulting in poor fuel quality and increased pollution levels. This has

environmental consequences, as vehicles using adulterated fuel emit more pollutants, contributing to deteriorating air quality in major metropolitan areas.

Consumer behaviour has also changed due to rising fuel costs. Many people are shifting towards public transport, which reduces congestion and pollution. However, in cities where public transport infrastructure is weak, this transition is not feasible. The automotive industry is also facing the heat, as higher fuel prices make private vehicle ownership more expensive. This affects Micro, Small, and Medium Enterprises (MSMEs) that supply parts to the automobile industry. Reports indicate that transporters and freighters are pushing for a 10-15% hike in freight charges due to increasing fuel costs, which will have a cascading effect on prices of essential commodities. The impact of rising fuel costs extends beyond daily transportation and affects the entire supply chain, leading to higher expenses for businesses and consumers alike.

Should Petrol Be Included in GST? Petrol plays a crucial role in the economy because transportation costs impact the prices of almost everything. Yet, it is subject to multiple layers of taxation, both by the central government and state governments, through excise duty and VAT. This raises an important question—should petrol be brought under GST?

State governments rely heavily on VAT from petrol for revenue, which is why they are reluctant to bring it under GST. If petrol were taxed under GST, states would lose a major chunk of their earnings. But does that justify the high tax burden on consumers? The government claims that these taxes are necessary for infrastructure development and public welfare schemes, yet the common man sees little relief from these high costs.

Taxing petrol multiple times creates inefficiencies. It leads to price differences across states and complicates the tax system. A uniform tax under GST would simplify pricing and ensure consistency across the country. The cascading effect of high fuel costs on transportation and goods makes a strong case for tax reform. If petrol were brought

under GST, it could help control inflation, stabilize prices, and boost economic efficiency. Additionally, it would eliminate the loopholes that allow price manipulation and black-market activities.

A uniform taxation system would reduce disparities, lower costs for industries, and benefit consumers. However, state governments fear revenue losses, and this remains a major hurdle in implementing the reform. A possible solution could be a revenue-sharing model between the central and state governments to compensate for potential losses. The

government could also look into alternative revenue streams, such as congestion pricing in urban areas or additional levies on luxury vehicles, to make up for the revenue gap.

Despite collecting massive amounts of tax revenue from petrol, there has been little effort to redirect these funds toward sustainable energy alternatives. The government has enough resources to subsidize electric vehicles and invest in green fuel research, yet such initiatives remain largely neglected. This raises questions about whether high petrol prices are genuinely about environmental concerns or just a means of revenue generation. Countries like Norway and Germany have successfully used fuel taxes to fund sustainable transportation projects, but India has yet to follow suit.

There are also concerns about the impact of lower fuel prices on consumption. If petrol prices drop too much, demand could surge, leading to environmental issues. However, this does not justify excessive taxation without providing alternative solutions. In India, where the middle class bears the brunt of high taxes, such policies disproportionately affect ordinary people. The wealthy are largely unaffected, and the poor often receive subsidies, leaving the middle class to struggle with inflated prices. Without a proper alternative energy infrastructure, keeping petrol prices artificially high only adds to economic distress.

As the Government of India cannot control the price hike since it is an essential income catalyst for the Indian economy. The gradual increase in fuel prices impacts other sectors, mainly transportation. As the price increases day by day and the income of the people is not increasing. One suggestion is a fuel price monitoring framework, the insights of the proposed research work emphasize the benefits for middle-class people. The proposed fuel price monitoring framework segregates petrol and diesel prices into three slots, namely premium, luxury, and economic, concerning the cost of the user's vehicle and brand. The FASTag technology, which works on RFID, detects the vehicle brand and price and that information is passed to the IoT devices. The IoT structure actuates the fuel machine, which is also connected to the internet. A public cloud is maintained to analyse the vehicle price and brand, and the results will be returned to the petrol machine to finalize the fuel price slot. This concept is discussed in the paper

'Feasible fuel (petrol/diesel) price monitoring technology in India without affecting government profit' by P.C. Prabhu Kumar, T. Ramathulasi, and P. Venkateswarlu Reddy.

Another suggestion is instead of excessive taxation, the government should focus on better long-term strategies. This could include rationing petrol consumption or investing in alternative energy infrastructure. If robust alternatives are available, petrol prices could be

lowered without significantly increasing demand. A balanced approach that considers both economic fairness and environmental sustainability is the need of the hour. The transition to renewable energy must be a priority, ensuring that India does not remain overly dependent on fossil fuels in the future.

In conclusion, while including petrol in GST is a complex issue, the potential benefits outweigh the challenges. A uniform tax regime would bring consistency, curb inflation, and make taxation more transparent. However, a transition plan that ensures revenue stability for state governments is necessary. Addressing these concerns while prioritizing economic fairness and sustainable energy solutions will lead to better fuel pricing policies in India. Policymakers must act with foresight, considering the long-term impact of taxation policies on both consumers and the economy at large.

Conclusion

This paper has explored the pressing issue of petrol pricing and its far-reaching impact on society and the economy. We have examined the reasons behind fluctuating prices in Chennai, Delhi, Mumbai, and Kolkata and discussed how government policies, particularly taxation, play a crucial role in determining fuel costs. It is evident that a substantial portion of petrol prices is due to heavy taxation rather than international oil price fluctuations.

The research has also highlighted the consequences of high petrol prices on daily life, inflation, and even the rise of illegal fuel trade. While taxation is necessary for government revenue, excessive fuel taxes burden the common man, affecting transportation costs and overall economic stability. A balanced and fair policy approach is needed—one that ensures government revenue without overburdening consumers.

If the government is willing, it can implement tax reforms, such as bringing petrol under GST, to make pricing more uniform and transparent. A well-structured policy change is the need of the hour to address both economic fairness and sustainability. Without timely intervention, fuel prices will continue to strain households and businesses, worsening economic inequality. It is up to policymakers to act in the interest of the people and the nation's long-term economic health.

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Debunking Development Industry: Policy Framework for Wellbeing Economy

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Abstract

Policies and practices required to take on global inequality, poverty and climate emergency are derived from a 500-year history ignored by the development industry concerned about the global North-South divide. This historical cognisance also leads to a unified policy design for the entire world in terms of degrowth/post-growth policy framework for universally establishing wellbeing economy for people and planet. A grounded metastory, thus, truly emerges about an authentic hope about how the world can change for the better out of a certain doom due to how the world has been working since long.

Keywords

Global inequality, Poverty, Climate emergency, Unified history, Policies and practices, Wellbeing economy

Introduction

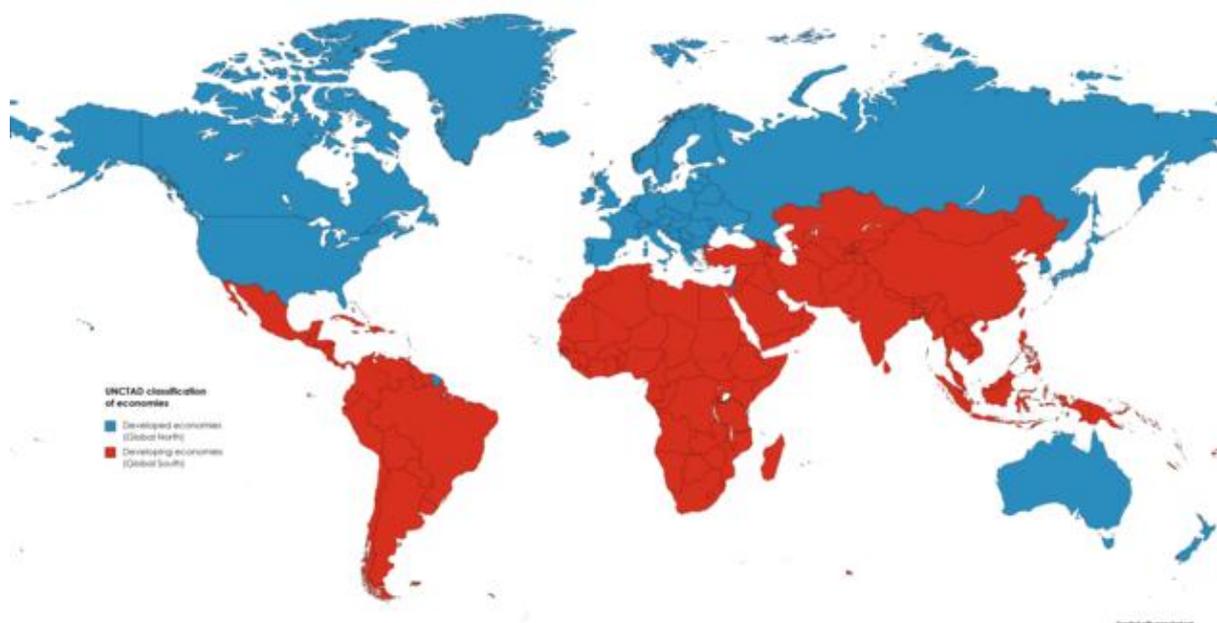
There are wailing sirens as follows.

Economics students should stay away from economics, especially development economics, if they are really serious about the economy to work for everyone (Radford, 2017). They are in the dark about the international failings to eliminate poverty, socio-economic inequalities and climate change as a result of “long standing neglect” by “many governments, economists and human rights advocates”. Their education is stunted. They lack global education which “opens people’s eyes and minds to the realities of the world, and awakens them to bring about a world of greater justice, equity and human rights for all. Global Education is understood to encompass Development Education, Human Rights Education, Education for Sustainability, Education for Peace and Conflict Prevention and Intercultural Education, and the global dimensions of Education for Citizenship.” Such, education is badly needed

through ethical communication, “training, youth work activities and awareness-raising” in order to “support young people’s active engagement in responding to global challenges and efforts to build democratic, peaceful, inclusive, equitable, tolerant, secure, and sustainable societies across the world” (see McCloskey ed., 2020).

In tune with this wailing, the purpose of this paper is to convey economics students a story of many sub-stories that they are not told. This metastory requires, to begin with, a reckoning with global inequality; and the so-called “development industry”.

As shown in the picture below, thanks to UNCTAD (United Nations Conference on Trade and Development), the world is divided into two parts by standard of living difference. The world in blue is the developed world or global North, and the world in brown colour is the developing and least developed world or global South. The former comprises “North America and Europe, Israel, Japan, South Korea, Australia and New Zealand”, and the latter is comprised of “Africa, Latin America and the Caribbean, Asia (excluding Israel, Japan, and South Korea) and Oceania (excluding Australia and New Zealand)”.



Global inequality is not just inequality between countries or inequality within a country by living standards differential. It means “unequal distribution of resources, opportunities, and power that shape wellbeing among the 8 billion individuals on our planet” leading to “the different lived experiences of our fellow humans, no matter where they live”. Taken this way, global inequality “is worse than inequality within countries. And economic inequality—the unequal distribution of income—is one strikingly visible dimension of global inequalities in

well-being. In the early 1800s, individuals worldwide had more similar living standards, and differences in wealth and income were closer. Global inequality grew substantially after the Industrial Revolution, sparking rapid income growth in Western Europe, the US, Australia, Canada, and New Zealand as compared with incomes in other countries. Fast forward to today, the 10 richest men in the world own more than the bottom 3.1 billion people. Economic inequality often interacts with other kinds of disadvantage that result from power imbalances in society worldwide. For example, the absence of women's voices in decision-making spaces or a caste system that discriminates against sectors of society with lower status reflect cultural, political, and social inequalities that undermine people's well-being" (Oxfam, 2022). Out-of-control inequality on these lines "creates a sense of unfairness: it erodes public trust, cohesion and solidarity. It is also linked to poorer health, higher levels of crime and less social mobility. People who live in unequal societies tend to be more frustrated, anxious, insecure and discontent with their lives" (Hickel, 2017).

International organisations, government departments, big international charities, think tanks and social movements constitute the development industry, and they are only concerned about North-South divide, as if it were a natural divide. They all have projected themselves, via development theory and practice, over time as working to fight against the causes of this divide along with climate change by giving grants or loans, promoting big infrastructure projects and employment generating industries, imposing pro-market (neoliberal) policies, building institutions like strong property rights and anti-corruption mechanisms, and implementing the 17 Sustainable Development Goals (SDGs) of the United Nations in the global South (Our Economy, Undated).

The Lie and the Truth

According to the development industry, "it is the global North which is developing the global South with a missionary zeal so that the South will converge with the North. This is what the economic anthropologist Jason Hickel calls as the "development delusion". It is a false narrative criticised well by Alston (2020) as follows. The World Bank "persistently underplays poverty using the flawed measurement tool of an international poverty line which sets the poverty benchmark at way too low a level to support a life of dignity consistent with basic human rights." The structural adjustment programmes imposed on South "were designed to stimulate growth and facilitate debt repayments but, instead, have weakened

the hand of the state in terms of economic oversight and deepened the debt burden of poor countries”. The repayments from low- and middle-income countries are astronomically more than the grants or loans received by them from the Northern OECD (Organisation for Economic Cooperation and Development) countries, so much so that the discourse of foreign aid hides “the patterns of extraction that are actively causing the impoverishment of the global South today and actively impeding meaningful development” (Hickel, 2017). The SDGs, like the Millennium Development Goals before them, use this international poverty line as a barometer of poverty. They frame their targets decoupled with human rights, without “a single reference to any specific civil and political right”. “There has been a heavy dependence on private sector funding which calls into question their sustainability as a public good”. Governments have paid low levels of attention to inequality, particularly in regard to gender. There is no promotion of any empowerment at all; only “the energy surrounding the SDG process has gone into generating portals, dashboards, stakeholder engagement plans, bland reports and colourful posters”! Lastly, the SDG goal of achieving the unrealistic 7 percent growth in least developed countries is “complicit with the same neoliberal growth agenda which has precipitated the existential crisis of climate change. It certainly undermines achievement of the target of limiting global warming to 1.5°C of the pre-industrial average”.

The development industry’s lie is also evident from the hidden truth that “what underpins Northern economic ascendance is a colonial history of coerced extraction” (Strazzante et al., 2022). Hickel (2017) has attributed poverty and inequality in the global South to a 500-year history that includes “colonialism, indigenous genocide, extractivism, indentured slavery and neoliberalism imposed by countries in the global North and their proxies” like the development industry. This was “a history of oppression and expropriation by Northern countries in the global South” right “from the first expeditions of Columbus to today’s neo-colonial forms of economic control through debt and structural adjustment programmes which continue to debilitate southern economies”.

Hickel (2017 and 2020) and Angus (2023) have actually revealed a unified history that can unravel the forces of global inequality in the Oxfam sense as mentioned above. This revelation, which also accounts for climate emergency as an add-on negative externality, should indeed be on the curriculum of undergrad economics students. It runs as follows.

Unified History

Hickel (2017) says that “the divide between rich countries and poor countries is not natural or inevitable. It has been created...In the year 1500, there was no appreciable difference in incomes and living standards between Europe and the rest of the world. Indeed, we know that people in some regions of the global South were a good deal better off than their counterparts in Europe. And yet their fortunes changed dramatically over the intervening centuries—not in spite of one another but because of one another—as Western powers roped the rest of the world into a single international economic system.”

When we go along with him to the times of the collapse of feudalism into capitalism, we come to know that the period from 1350 to 1500 was “the golden age of the European proletariat when they enjoyed greater economic independence, shorter working hours, grassroots democracy and improved living conditions in tandem with nature. The struggle of labour against landed tithes and taxes imposed by nobles and the church in Europe eventually led to lower rents and higher wages ‘with free access to commons’. The period from 1500 to 1800s was “among the bloodiest, most tumultuous in world history’ on two counts. The earlier relative worker autonomy was brutally destroyed by a gentrified system of enclosure which forced commoners off their land. Rural communities were thus destroyed and their relationship with nature was severed. Common land was fenced off and a nascent capitalist system emerged to have plentiful wage labour supply it needed to sustain the new cotton mills. Alongside there was colonisation of the global South which provided the cotton and other raw materials needed to fuel the industrial revolution. Indentured slaves from Africa and the Americas constituted mostly the labour needed to extract resources from the global South. They perished from a pitiless colonial system even as the enclosure system in Europe created “artificial scarcity” whereby a decent standard of living was denied to the commoners forced into subsistence labour without security or tenure. Little wonder that life expectancy collapsed to 25 years in the industrial powerhouse of Manchester due to race to the bottom in wages and appalling living conditions decimating the ranks of new urban workers. Similarly, a famine was created in India that claimed thirty million lives at the end of the nineteenth century. The development industry does not reveal these deplorable injustices to modern economics students.

This is not all. The enclosure severed humans’ relationship with the living environment and their intimate knowledge of “plants, insects, animals, rivers, mountains and soils”. In other words, animism—the idea that all living beings are interconnected and share in the same spirit of essence”—based on reciprocity was lost to ensure that ecosystems could regenerate.

It was replaced by “dualism which asserted the dominance of humans over nature” based on extraction. And this became “the philosophical grist to the mill of capitalism” which has objectified “nature as a commodity to be exploited and converted into growth and profit”. We can trace from these anthropocene origins “the trajectory of capitalism from the eighteenth and nineteenth centuries of fossil-fuel-based growth in the global North and exploitation in the global South to the post-Second World War obsession with GDP (Gross Domestic Product) and growthism”. And this amounts to an exploration of the “absurdity, waste, and ecological fallout of endlessly pursuing the ‘fix’ of growth “indefinitely, for its own sake”! We can understand how we are “collectively bombarded by ever more sophisticated and insidious forms of advertising to purchase commodities that we do not need and create growth that has no social value”. Besides, there is experiential developmental knowledge that more GDP is not necessary for improving human welfare at all.

Policies and Practices

The policies and practices required as historically conditioned, clear-eyed, and grounded solutions to take on global inequality, poverty and climate emergency can now be extracted from the above unified history of the “relationship between capitalism, inequality and the relentless exploitation of the natural environment for growth” at all costs. They include “the closure of tax havens that facilitate illicit transfers from the global South to the North; tax justice that increases the tax burden on the broadest shoulders; forcing transnational corporations to pay their way; dropping the international poverty line and adopting a human rights-based measurement of poverty in its place; removing the crippling debt burden from poor countries; reducing dependence on private resources for financing public development goals; restoring powers of economic sovereignty to the state; and acknowledging the “deep deficit of political motivation” underlying the malaise attached to the SDGs”.

They also include “pathways to a post-capitalist world” by degrowth or post-growth policy advocacy. Degrowth is “a planned downscaling of energy and resource use to bring the economy back into balance with the living world as a safe, just and equitable way...Reducing resource use removes pressure from ecosystems and gives the web of life a chance to knit itself together, while reducing energy use makes it much easier to accomplish a rapid transition to renewables before dangerous tipping points begin to cascade” (Hickel, 2020).

Degrowth is the only right way out of the current mess because “capitalism demands that GDP grow by 2 or 3 percent a year, which means doubling the size of the global economy

every 23 years. This, in turn, leads to an endless cycle of production and consumption to the point where it is now dramatically overshooting what scientists have defined as safe planetary boundaries”.

The degrowth pathway involves many proposals like ending “the planned obsolescence of products which are designed to fail after a short period of use in order to create a market for replacements; ending the intrusion of advertising into our public spaces in order to create a market for products we neither need or want; promoting neighbourhood workshops that create greater shared public access to services and equipment that would change ownership to usership; ending food waste and scaling down ecologically destructive industries; democratising multilateral bodies such as the IMF, World Bank and the World Trade Organisation which are dominated by the largest economies rather than the size of the populations of member states, as countries in the global South do not have an equal voice in the decision-making processes of such international organisations”.

Green New Deal proposals based on environmental Keynesianism and green energy production do not align with the above post-capitalist degrowth pathways. The former is an advocacy for green projects with state spending but it “suffers from a fatal flaw. In order to work economically, these projects depend on continuing growth in the consumer economy” which is environmentally unsustainable. And “if these projects work environmentally, they will not be economically sustainable” in terms of earning an economic return within a capitalist economy. Keynesianism is not the answer, because it is, after all, “all about expanding demand”, while our climate emergency “today requires reducing demand” (Blackwater, 2012). As regards the hype about ongoing green energy production, the heartbreak is that it is not made independent of fossil-fuel-usage (Moore, 2019).

Frankly speaking, as Cato (2013) does, there is really no progress at all in the world in making transition to a genuine green economy that circumscribes economic life flourishing within ecological limits. The reason is that policy makers are neither bold nor experimental to implement post-growth-transitional policy proposals as follows. “First, there should be only transitional investment, where energy and money are only invested in infrastructure in the short term if it can be demonstrated that in the long term it will reduce demand for energy. This is the way to discourage opportunistic behaviour of business people. Their investments must be justified if and only if in the long run they would ensure greater wellbeing with investment of less energy despite requiring more energy in the short run. Secondly, there should be substitution of local economic activity for global economic activity to build local resilience. This amounts to reducing the energy inefficiency of lengthy

global supply chains by developing a system of self-reliant local economies for enhanced accountability for both resources and wastes. Thirdly, there should be Ecological Enterprise Zones to enable experimentation with policies that would enable a transition to a postgrowth economy in pilot areas. And fourthly, there should be a sales tax related to energy and social necessity, determined by a deliberative and democratic process of consultation. This means that since high income people consume high energy-intensive products, ethically sustainable consumption cannot be incentivised unless there is the introduction of a system of sales tax proportional to the energy content of various goods consumed” (Cato, 2013).

According to ecosocialists, it is not surprising at all that policy makers are impotent to make any difference to the abominable state of affairs in the world. For example, it is impossible for agro-ecology based policy environment to emerge in favour of food sovereignty as long as land grabbing goes on under capitalism and its imperialist expansion for the promotion of industrial agriculture. As the progressive Transnational Institute points out, “Land grabbing is an expression of the dominant development model based on sustained, increased and unequal consumption of both finite and ‘renewable’ natural resources. The social and ecological limitations of this development path, as well as its extreme inequalities, are widely known and experienced daily, especially by the most vulnerable populations. Dealing with this underlying, multi-faceted and structural problem requires going beyond narrow and partial regulatory takes, in order to address the politico-economic structures where land-grabbing dynamics are rooted, i.e., the existing industrial pattern of agro-commodities (flex crops and flex trees) and energy production and consumption controlled by Transnational Corporations under a world trade and investment system where financial capital reigns. In the current global debate over land grabbing, investment tends to be equated with corporate investment that is skewed towards large scale, petrol-based and capital intensive/labour expelling ventures. As neoliberal policies were implemented worldwide, state-driven investments in agriculture dried up, while investments by small-scale farmers were made invisible. Orthodox trade liberalisation schemes have wiped out millions of small-scale farming ventures without resulting in increased levels of food security, i.e., through the foreseen augmented capabilities to buy food in the market claimed by free trade promoters. A fundamental starting point when talking about systemic change to end land grabbing are these two other types of investment, namely public investment and investments by small-scale farmers. The urgent task is to revive state investment while making investments by small-scale farmers visible. It is the combination of state and small farmers’ investments that make any systemic change to end land grabbing possible. Additionally, it is urgent to decouple food (and agriculture in general) from dominant

corporate-orchestrated trade systems at multilateral and regional scales” (TNI, 2013; also see Angelo et al., 2021). The development industry’s ideologues and economists do not talk on these sensible lines.

The green-socialist policy design for a people’s green new deal as proposed by the ecosocialists has got two important non-negotiable ingredients (Lowy, 2018): “democratic ecological planning, wherein the population itself makes the main decisions about the economy; and qualitative transformation of development by building a “moral economy” founded on non-monetary and extra-economic, social-ecological principles and governed through democratic decision-making processes”. In other words, their praxis is governed by social anarchism and their goal is a sharing economy with blossoming of quality of life within ecological limits.

However, these ecosocialists have been slapped by some fellow environmentalists on many counts: “First, most people do not subscribe to socialism and are not convinced that the nationalisation of much of private industry is either necessary or desirable. Second, although most people would agree that capitalism has serious flaws, they are not convinced that it is either necessary or desirable to abolish it altogether. Third, a movement only of ‘exploited and oppressed people’ is just not big enough to solve the climate crisis: an effective mass movement to reverse climate change must engage with all sections of society. Fourth, if we are to have any kind of stable future in this world, ecosocialists have no choice but to work with non-socialists, inside, outside and across political parties, building a highly inclusive climate and ecological movement, involving democratic participation and action at all levels and in all forms of social organisation.” Therefore, as a minimum, the policy focus should be on “appropriate regulation - nationalisation may or may not be appropriate - of fossil-fuel companies and mandating a phasing out of emissions by 2030, combined with the provision of universal basic services including on housing, transport and food and a fair taxation system, including the taxing of carbon. Greater clarity on the reasons for democratic reform would also be helpful” (Somerville, 2022).

There are non-socialist economists such as Layard (2021) who say that “we need to get the most benefit from any money that we spend. But the benefits should be measured in terms of happiness—and not of money. This thinking applies to every issue...economic or otherwise. It should apply equally to materialistic projects (like most infrastructure) and to policies with a more social or psychological objective.” Social and economic policies, thus, should take care of human life and happiness or wellbeing, but again, in light of the discussion above, whether and how much this could take place in capitalistic economic

framework with growing pressures from climate strike movement (PHFI, 2019), global justice movement and the like, is the moot question.

All the same, frustrated economics students can get a taste of what Layard is enthusiastically saying about the importance of World Happiness Movement thus: “...we should each of us, in all our choices, aim to produce the greatest happiness that we can—and especially the least misery. This noble vision does not go against basic human nature. For all of us have two inherited traits—one selfish and one altruistic. The selfish side believes that I am the centre of the universe and my needs come first. This trait was important for our survival as a race, and we should indeed take good care of ourselves and of our own inner equilibrium. But the altruistic side enables us to feel what others feel and to strive for their good. This is vital for a happy society. It is a fallacy to think that reputation is a sufficient motivation for good behaviour. We need people with an inner desire to live good lives, even without reward. A happy society requires a lot of altruism, and so it needs a culture which supports our altruistic side. This gentler culture has always been around, in some form or other. It is there in all the great religions. Yet for many people these religions have lost their ability to convince. As religious belief has declined, a void has been created and into that void has rushed egotism, by default. We have told our young people that their chief duty is to themselves—to get on. What a terrible responsibility. No wonder that anxiety and depression are rising amongst the young. Instead, people need to get out of themselves—to escape the misery of self-absorption. So there has to be a new, secular ethic, based on human need and not divine command...The world happiness movement is a house of many rooms. It is not a movement of drop-outs; it is a movement of people who want to engage passionately in the welfare of others, while taking care of their own inner space. There is no objective reason why so many lives in the West should be so stressful. We ourselves have created the stress by our goals, and the way our institutions respond to them. If we change our goals, we really can produce a happier society. Future generations will be shocked by many of the unthinking and unskilful features of life today. They will be shocked at the neglect of mental illness, at the stresses imposed on our children, and at the common assumption that everyone is an egotist. But cultures can be changed and change is often rapid. Until recently, men dominated the world of work, gay couples had to hide in shame, and it was fashionable to smoke in public places. Even more recently, domestic violence, child abuse and sexual harassment were swept under the carpet. But no longer. In every case it is a powerful social movement that has brought about the change. So the world happiness movement can indeed bring in a better, gentler culture and do it fast. But what happens will ultimately depend on each one of us. We can all be heroes in the happiness revolution.”

The development industry has not yet openly supported what the World Happiness Reports convey about how the Nordic model of development has promoted happiness and how it can be replicated elsewhere by social democratic capitalism, though. Similarly, whether most economists; politicians and public servants; scientists and technologists; educationists; health professionals; families; and communities do have commitment to human life and happiness is another moot question to be empirically researched. Some scholars have prioritised cultural change as the most important requirement by “a value change to much more concern with cooperation, sharing, helping, caring, collective welfare and living more simply” a la the Minimalist Movement (Trainer, 2024). Again, how minimalism can permeate the consumption attitudes of people is a behavioural economic inquiry to be done.

Let a Hundred Flowers Bloom for Wellbeing Economy

Multiple actors in terms of 400 plus organisations, six national governments, 88 ambassadors like Jason Hickel, 150 academics and 15 local hubs constituting the Wellbeing Economy Alliance (WEA) claim themselves to be “changemakers and disruptors questioning the status quo”. In tandem with the unified history as outlined above, they define good economy as the wellbeing economy— “an economy designed to serve people and planet, not the other way around. In a Wellbeing Economy, the rules, norms and incentives are set up to deliver quality of life and flourishing for all people, in harmony with our environment, by default.”

They are against the policies and practices of the current economic system in which “problems are made worse; arts are commodified and exploited to spur consumption and conformity; the commons are plundered by individual companies and people without comparable contribution to public revenues; technological developments and intellectual property are exploited by private owners without comparable recognition of the public investment in R&D that underpinned them; there is no empowerment agenda with the powerful giving up or sharing power; and there is thin representation even when democratic systems are in place”.

Accordingly, they propose solutions, many of which are already discussed above, and offer confidence in attaining them with inspiring examples around the world showing us the way. Their approach includes “a wider suite of success measures beyond GDP with visionary national development plans; and predistribution of power, wealth, time and income so that people do not fend for themselves or rely on limited redistributive mechanisms. There are

social enterprises and businesses owned by their workers, community wealth building and living wages, citizen assemblies and participatory budgeting, and preventive measures that stop harm from happening to nature and people via outcome budgeting and circular production and consumption”.

However, WEA has been lately reviewed rather negatively (Hayden, 2024). Although the degrowth approach to development shunned by the development industry is factored into WEA advocacy, the ground level content of its achievement is said to be meagre. This only strengthens the ‘impossibility theorem’ of the ecosocialists that capitalism can never promote general welfare by eliminating inequality, poverty and destruction of nature.

Conclusion

“We Have Everything to Lose, and a World to Gain”. This indeed is the conclusion, owed to the economic anthropologist Jason Hickel, that follows from the above discussion. The development industry will definitely make us net-losers. By contrast, the wellbeing economy thinkers and practitioners will hopefully make us the net-gainers.

Economics students, thus, should not believe in what the development industry says to them if they want historically conditioned economics and economy to be in the service of people and planet. The sooner they realize the better it is that “our present economic model of exponential GDP growth is no longer realistic, and we have to face up to this fact” (Hickel, 2017). And “Traditional pro-growth policies” that the development industry endorses, “such as lower corporate tax rates, labour reform, deregulation, austerity-driven cuts to services and privatisation can have devastating effects on the wellbeing of poor people and the state’s capacity to reduce poverty” (Alston, 2020). They must embrace critical realism that there are alternative approaches to development that we need to consider in addressing the questions of inequality, poverty and climate catastrophe such as degrowth, wellbeing economy, people’s green new deal and happiness movement; and that there is growing activism in this regard.

What policies and practices work for the wellbeing-interests of people and planet need to be discovered over time from the WEA experiences. At the same time, economics students must not give up finding ways to “seed their utopian imaginations about the possible futures cracked open” by critically thinking about the issues raised in this paper like Rethinking Schools (Undated) does with children in America.

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Articles

The Psychology of Discounts: Perception Shaping Economic Decisions

By Poorti, Miranda House

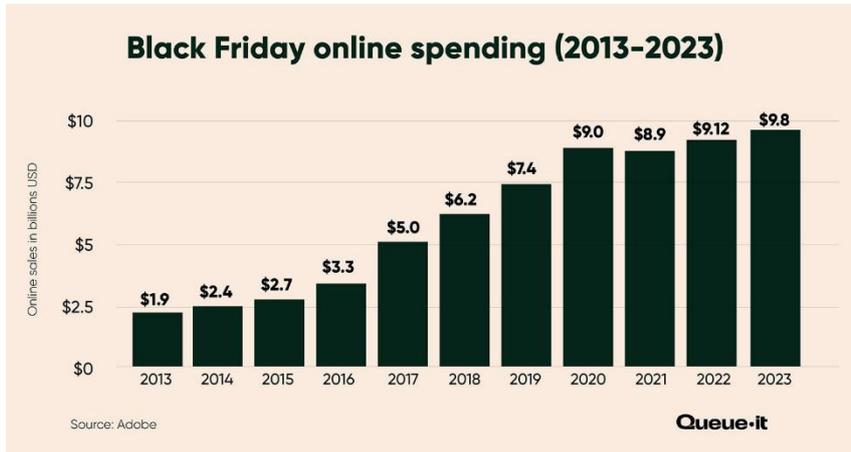
Have you ever bought something because it had a 50% off tag? This simple tag can be so attractive that turning back becomes impossible even when the product is unnecessary. It's not about money; rather, it deep-sits into the psychological design of feeling like a savvy shopper and a smart customer. For instance, a study by Paul Zak of Claremont Graduate University discovered that discount coupons increase the level of oxytocin – the hormone responsible for feelings of happiness, love, and trust, in the human body. Besides this, limited-time offers manipulate people's psychology and emotions by creating a time-sensitive feeling, and thus people make impulse purchases.

Hence, businesses have completely consumer behaviour through discounts, and utilise it for their profits. Behind these simple price cuts, lies an interesting play of psychology and economics. Anchored in behavioural economics, the phenomenon depicts that consumer behaviour is not always rational - it is an emotional and perceived benefit-driven action. For businesses, understanding the psychology behind a discount is more of an apparatus to stimulate demand, clear inventory and drive sales in the short run. Whereas for consumers, it is a dance of opportunity and temptation that often tests self-control.

Among the many, "Anchoring" is one of the most common tools applied in discounting spheres. A tag slugged with 100 and a cross through it, with 70 in bold print reduces the perceptual value of the customer as the brain digests the value of 100 as a benchmark and makes 70 look like a big discount, perceiving it as a win situation. This economic tool takes advantage of human's disposition to judge comparative value rather than absolute value. Anchoring prices shifts a higher percentage of the consumer surplus into the pockets of a retailer. For instance, by online retailers such as Amazon, prices are anchored to an inflated original price besides the discounted price and hence, maximizes sales without affecting profitability. Not only online retailers, but the large store owners also come into the market with similar strategies.

The other significant psychological pusher for marketers to drive consumer behaviour is "Fear of Missing out or FOMO". Phrases like 'only 3 days left' push the shoppers to take action immediately, and the sense of urgency kills all rational decision-making. Thus, it compels customers to choose purchases over careful thought. In economic terms, the scarcity mindset is created in customers due to a FOMO-driven strategy. It changes

consumer behaviour by shifting future demand to the immediate demand, normally at the cost of future purchasing power. The best examples of how businesses sell out their inventory and increase conversions are Black Friday and End-season sales, which by integrating anchoring and FOMO, nudges impulsive purchases. [Direct-to-consumer brands](#) and e-commerce marketplaces are estimated to have recorded a 17-18% increase in order volumes during the year 2024 [Black Friday](#) weekend, compared to last year.



Along with “how much”, the way discounts are offered also influences consumer behaviour. Based on behavioural economics, this can be explained through the principle of DIMINISHING SENSITIVITY, according to which, the perceived benefit of a discount reduces as the monetary value of the product increases. Percentage-based discounts are usually effective for commodities with higher prices because savings become significant in relative terms. It shows the amount of discount that would allure the consumer from buying an overpriced item. With items having a low price, an absolute discount is much more attractive, as consumers always measure it in terms of proportion to the original base price. It is relatively easier to compute mentally and understand the actual dollar instead of a percentage discount.

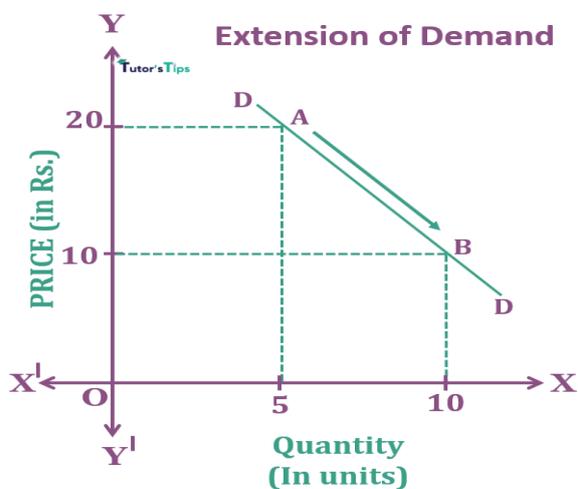
Another highly effective psychological weapon used by businessmen is the DECOY EFFECT. According to the principles of behavioural economics, it is that concept that describes how people's preferences change in case a third, less desirable alternative is added to the option of choosing between two options. The ‘decoy product’- the additional product that is added to make the target product superior, makes the target option better if such deals are bundled. The Decoy Effect is based on ‘asymmetric dominance’- providing a comparative advantage to one option in establishing it as the most attractive one. Consider an example of a café whose menu is -:

- A Small Coffee for \$5

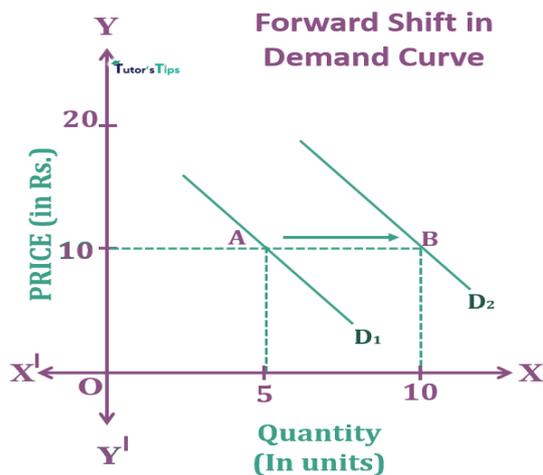
- A Big Coffee for \$7
- Muffin and Big Coffee for \$ 7.5

You will choose the third option. Here, the decoy product is the big-size coffee, which is used to shift the choices of customers toward the 3rd option that is considered best among all three. The price is nearly at par with the \$7.5 bundle; however, it provides less value because a bundle of goods is not provided. But, overusing the decoy effect can affect the brand loyalty of customers. Sharpened customers will know how to make decisions well, thus being able to avoid the nudged choices that do not align with their preferences.

Considering the interplay between psychology and economics, bringing in the purer and more fundamental economics enhances the clarity regarding the topic, by showing the on-ground reality. As prices decrease, the consumers buy more at a lesser price, and this will cause movement along the demand curve. Such movements have economic backing on the Law of Demand. The movements are, however short-lived because when the prices return to normal, so does the demand. This is how retailers clear out their inventories and give wings to instant cash flows.



Sometimes, discounts do not just increase purchases by existing customers. They shift the entire demand curve outward. This happens when lower prices attract consumers who formerly could not afford the product. This shift can be long-lasting if expectations are met during such a period and repeat purchases occur even after the prices return to normal. With this, we can conclude that the longevity of discounts depends on whether it leads to movement along or a shift in the demand curve.



These discounts do not benefit a business alone but have a trickle-down effect on the economy. At the macroeconomic level, it also boosts seasonal economic activity that boosts the numbers of retail sales and, therefore, impacts the GDP growth. Yet, a persistent event in the due course, makes the customers wait for the discounted products and, thus, encourages lower sales of standard-priced items and reduced margins. Hyper-discounting in a highly competitive business may hence result in a price war, that destabilizes the market and kills the small players, leaving them unable to sustain such practices.

Discount strategies provide a glimpse of another fundamental concept of economics- PRICE ELASTICITY OF DEMAND. Price elasticity can be seen as an actual real-life experimentation. Businesses can classify their goods and refine their discounting strategy by observing the behaviour of the consumers at various discount levels. Price elasticity has macroeconomic effects as well, such as the impact on market stability. High discounts in elastic markets such as luxury goods produce unpredictable spending surges while inelastic markets, like medication, tend to remain more stable and can dampen volatility in the economy caused by the elastic goods. Understanding price elasticity helps businesses strategize the allocation of discounts in a way that maximizes return on promotional investments, whereas the understanding of elasticity by consumers makes them better deal assessors rather than impulse buyers on every price cut.

Despite being a very powerful sales driver, discounts do have the negative effect of “cannibalizing revenue”. It results from an intense discounting on one product, diverting the sales away from higher-margin alternatives, which reduces profitability altogether. In this, businesses must adopt a balancing strategy where there is an integration of both short-term sales objectives as well as long-term profitability. On a macro level, uncontrolled cannibalization can cause price wars within industries. Competing for market share in such

a manner, cuts through margins across the board, making it hard to sustain themselves with smaller businesses.

In the modern world dynamics, technology has changed discount psychology from a broad, one-size-fits-all approach into something precise and data-driven. Thanks to data analytics, artificial intelligence, and machine learning, companies can now adopt the most personalized and dynamic discount strategies. They will have the maximum psychological and economic effect. Personalization is the heart of technology. The retailer can analyze huge consumer data, thus tailoring the discounts according to an individual's preferences, browsing history, and purchase history. Technology-based discounting is more efficient on an economic level because companies can focus on the budgets that would bring the most impact. Personalized offers reduce waste; that is, the discounts issued to individuals who would have purchased regardless. Technology-based discounting also enhances the psychological effects noted above: FOMO, anchoring, decoy effects, and perceived exclusivity. For instance, Amazon uses AI to offer "lightning deals" or "recommended for you" discounts, compelling users to impulse buy.

Discounts are thus far from a tool to boost sales; instead, they become a lens through which the complex relationship between psychology and economics comes sharply into focus. Each sale, coupon, and price cut has its origin in strategy, playing on human psychology, inducing demand, and thus influencing economic results. For companies, it is now the delicate art of achieving that sweet spot between immediate sales uplifts and sustainable brand strength since too much discounting destroys margins and habituates customers to seek only permanent lower prices at the expense of the brand's value. A discount not only influences individual consumer behaviour but also moulds the broader macroeconomic trends. Large-scale events of sale, such as Black Friday and Singles' Day, are turning into economic phenomena that churn billions of dollars in revenue, reshaping whole industries. Businesses carefully integrate economic principles with psychological insights to serve offers that resonate with customers while conserving long-term sustainability. Both businesses and consumers must relate to them appropriately as the nature of discounting becomes highly technological and behaviorally informed.

Policy Analysis: Self Help Groups in India.

By *Yashika Sachdeva, Miranda House*

Abstract

India remains embedded in deeply rooted economic, political and social inequalities despite the nation's global positioning and economic rise. Against this backdrop, when the ground realities strikingly contrast the numbers and narratives, the role of Self-Help Group emerges as a plausible avenue for growth and development especially for unskilled rural workers and women. The SHG-Bank Linkage Programme, inspired by the Grameen Bank model in the 1980s is a micro financing scheme though different from the conventional freebies distribution policy, SHGs are aimed to leverage the mass of unskilled population, make them self-sufficient entrepreneurs through inter loaning and savings.

The objective of this paper is to study the role of SHGs in the Indian economy, their impact on women empowerment and aims to understand how sustainable SHGs can prove to be. The research also underscores the gender analysis and the nuances of three kinds of SHGs which include all male, all female and mixed. It highlights how women-led groups excel others in loan repayment, adherence to objectives, and sustainability. Ironically, the inefficiencies of male SHGs, stemming from interpersonal conflicts, ego, and higher literacy rates which reflect deeply rooted patriarchal structures that hinder equitable progress.

While the policy of SHGs is widely celebrated through success stories, there are underlying social, economic and political complexities which are holding this from realizing its latent power in eradicating poverty and social empowerment. These include non-repayment of loans, lack of effective leadership and organization, politicization, gender disparities, and unfulfilled promises of the government. This study also lays out the interplay between SHGs and the role of politics with reference to a case study of Tamil Nadu. Though perfect on paper, its implementation needs improvements and collective effort.

The paper concludes with key actionable recommendations emphasizing the need for inclusion of Blockchain technology to promote transparency in loans, gyratory or rotatory management or governance to increase accountability and training of all members to upskill them to encourage inclusive growth and contribute to India's vision of an equitable, inclusive, and self-reliant society.

Introduction

Rupa Goswami, like any other ordinary rural woman, never dreamt or didn't have the courage to dream beyond the four walls of her kitchen until she became a member of Manasha SHG. Through the loans provided by submitting a Micro Credit Plan (MCP), Rupa managed to step towards her journey of economic independence and not just being a dairy entrepreneur but also a beacon of light for her peers.

How a country aiming for global economic dominance still struggles with basic income equality and gender parity: Socio-Economic Backdrop of India.

Rupa's story reflects the broader socio-economic fabric of India with stark contrasts. India remains one of the world's fastest-growing large economies, taking the mantle of the fifth-largest economy leaving the United Kingdom behind. The GDP for F.Y. 2024-25 grew by a staggering 7.2%, exports by 8.7%, meanwhile, gross fixed-capital formation spending grew at 7.5% despite India undergoing the General Elections and its uncertainties this financial year.

Additionally, the digital revolution has never been stronger with digital payments penetrating rural India and the accessibility to the internet has grown much easier. The linking of millions of Aadhar cards with their banks has cut red tapism and corruption.

It has successfully hosted the G20, became the first in sending a rocket to the moon's south pole, and positioned itself as a global power.

Prima facie, the numbers and narratives seem to be working but digging deeper into the reality of the Indian soil, one cannot but face the sobering truth. For the vast population of 1.4 billion people living in India, it still seems like a struggle to find jobs and to sustain oneself in this economy. The socio-economic position hardly seems to improve with the growing poverty, income inequality and even the road towards being the third largest economy of the world would be irrelevant when India stands at the last position among all G20 and BRICS countries in terms of Per-Capita GDP. While the shimmer of growth numbers might blind us to the actual situation shows starking disparities. Men in rural and urban areas continue to face job losses but the condition of women in the workforce paints a grim picture of the broader position of women empowerment in India. It is startling to note that the labour force participation rate among females remains about 32.7%. A perpetuation of social, economic discriminatory behaviour in the society has contributed to the skewed sex ratios in the workforce, leadership and made them financially dependent. This can be particularly noticed in rural married women and as such, policy can't just be

focused on urban inclusivity but is required more in rural areas where women continue to face the repercussions of patriarchy and misogyny. More importantly, the quantity of employment does not suitably indicate the quality of employment of women as are seen concentrated more in highly informal, unpaid or subsistence-based sectors underscoring the poor position they enjoy in the society. Additionally, Nancy Agarwal et al points out: “The income effect suggests that a social stigma is created for unskilled workers when household incomes rise and social mobility increases (especially among the erstwhile poorer) women. This, coupled with the caste status of the households (in the rural context), limits women to so-called “household responsibilities.” This highlights a paradox where, as families achieve social mobility, women are increasingly expected to remain at home, reinforcing social, economic, and political inequalities. Consequently, addressing these disparities requires grassroots-level actions aimed at alleviating poverty and promoting social equity.

The Policy of Self-Help Groups-Bank Linkage Programme

Self Help groups are voluntary collectives of 10-20 persons mainly women in rural areas who come together to save money and provide loans to each other. They themselves decide on the amount of savings, loans, interest rates and the objectives. These people usually come from similar socio-economic backgrounds having faced a similar set of problems, and have a common purpose of resolving their issues through self-help and community engagement. SHG is an outlet, a passage for the economically weaker to access capital to gain financial assistance which otherwise would have been ineligible for the policy of Self-Help Groups (SHGs) revolves around microfinancing, where members contribute savings collectively. These pooled savings serve as a fund that enables the group to provide loans to its members, ensuring access to capital when needed. This policy follows a bottom-top approach aiming at leveraging the strength of rural unskilled population of India and empowering them financially, economically, socially, politically and mentally.

Like that of Rupa, the SHG-BLP (Self-Help Groups-Bank Linkage Programme) has reached 17.75 crore households as of 31st March 2024. It evolves as an effective mechanism to train, build capacity and upskill the rural population through inter-lending. The inception of SHGs can be traced back in the 1980s to the concept of social mobilization introduced by Prof. Yunus’s Grameen Bank model. It was initiated later in India by MYRADA and adopted by NABARD. Both the models are based on the same fundamental ground of microfinancing, however, there are differences between the two. The Grameen model from its formation is smaller, more formal in its organization and disciplined in a militarized way owing to the

history of Bangladesh; however, SHGs in India are the very essence of democracy, individualism and are loosely autonomous. For instance, in SHGs, Non-governmental Organizations play a major role in training, capacity building and facilitating dialogue. Moreover, SHGs are like Micro-Banks in themselves carrying out all the necessary activities independently or with the assistance of MFIs.

There are different schemes in the market launched by the government based on micro-credit, however while those cost the treasury huge deficits, SHGs for that matter have proved to be sustainable, durable and more efficient than distributing freebies. SHGs has had a staggering 95% repayment rate of loans leaving the banks satisfied. The SHGs for one has reached the at the grassroot level and reflects the scale and the diversity of the financial system of India estimating to reach to 400 million people. The net household income, the average value of savings of the household seems to have significantly increased thereby contributing to the reduction in poverty and better living standards.

Hurdles in the path of true success of SHGs

Despite the ubiquitous nature of SHGs, there are some critical problems and challenges that have been identified with regards to the Self-Help Groups. Three key questions raised deal with the gender bias prevalent in SHGs, the sustainability of SHGs and their politicization.

Gender analysis of SHGs, their impact on empowerment and ostracization becomes an important subject owing to present inequalities in the current trends.

A study found that around 92% of households reported that women were more empowered post involvement in SHGs and their confidence, economic condition were seen to improve. However such results are highly preliminary and do not consider the full, broader, deeply rooted problem. As opposed to almost all other fields, where males take the lead, contrastingly, in SHGs, female groups are reported to be more efficient than all-male SHG. Hence, the gender analysis becomes important to understand the underlying cause of this inequality and why one would perform better than the other. Report by Purna Chandra Parida and Anushree Sinha on “Performance and Sustainability of Self-Help Groups in India: A Gender Perspective” underscores certain factors that have caused this divide. Some of them include mismanagement of money borrowed from the banks and lack of commitment and accountability. Surprisingly, the very factors that indicate a patriarchal

system has led to women SHGs to excel more than men. Even the higher literacy rate of males has made all-male SHGs unsustainable. An important aspect is also lower interpersonal ego among female members of the group and less chances of power struggle for leadership. This averts internal conflict and lets the group prosper peacefully. Conversely, all-male groups are prone to in-fighting for leadership positions within the group. Ironically, the very qualities that are typically seen as essential for building an equal society, such as education and leadership, were absent, yet it was this lack that contributed to the efficiency of the all-female groups. To move out the financial dependency which may have been caused due to patriarchy, characteristics of this inequality are the factors which help succeed them. Study has shown that one of the reasons for women's success is because they tend to follow more than lead which is quite flawed but is aiding the SHG to its advantage.

Along these lines, the most important factor about any policy design is how long the policy can sustain itself. For example, some government schemes which distribute microcredit for vote bank purposes are not at all sustainable since they cost huge deficits. Therefore, It becomes imperative to analyse the sustainability of SHGs while evaluating this initiative.

The factors which influence the sustainability of SHGs are loan recovery, repayment, per capita saving and linkage with a federation. Reports suggest that among the sample of three types of SHGs including, all-male, all-female and mixed, 73.7 percent of sample SHGs reported 100 percent repayment by members. Among the three types of SHGs, 75.1 percent of all-female SHGs reported 100 percent repayment by members, which is considerably higher than all-male SHGs (56.8 percent) but lower than mixed SHGs (81.8 percent).

Women SHGs were suggested to be more sympathetic towards savings and investment in education, healthcare and tend to stick to the pre-defined objectives contrary to increased expenditure on alcohol consumption by male-SHG. They are highly concerned about the well-being of their children and family members and their aim was to educate themselves and confront social, political, and economic problems. On the other hand, members of all-male SHGs have had interpersonal conflicts, and tend to not follow the basic objectives and goals of group formation. As a result, they are most irregular in loan repayments and perform badly in economic and administrative activities. This suggests that female SHGs are more sustainable than all-male ones. There is potential to make SHGs a true source of poverty alleviation in India however, if the status quo is maintained, the ship is destined to drown.

Another major problem which hinders this policy from reaching its full potential is the politicization of SHGs. The SHGs have come to become a breeding ground for mobilisation of mass crowds and identity politics. The political parties hunt these SHGs and fund them only for the purpose of gaining votes and support. Politics, however, can be both destructive and effective.

Case in Point, In Tamil Nadu when DMK was in power, Stalin, as deputy chief minister, at multiple occasions, was seen as providing bank loans to the SHG leaders during his public meetings “for whom the SHG member will vote”.

Apart from this, the role of non-governmental organisations is also a contested political issue. Often, the NGOs supposedly neutral tend to extend favours to closely related SHGs. This can prove to be disadvantageous to other SHGs and lead to their ostracization. Additionally, the statistical evidence of the reach and engagement of SHGs can also be misleading since the increase in quantity cannot always ensure quality. This inefficiency can be associated with the lack of organization and cohesion which necessitates examining collaborating and reactionary elements in SHGs. Moreover, many SHGs have not yet received fully promised loans and subsidies as promised. The claim of linking SHG accounts with Panchayat Level Federations (PLF) so as to increase the limit of the loans up to Rs 10 lakh has not been fulfilled in most cases.

Policy Recommendation

While the policy of SHGs is widely celebrated through success stories, there are underlying social, economic and political complexities which are holding this from realizing its latent power in eradicating poverty and social empowerment. Though perfect on paper, its implementation needs improvement, transparency and collective effort. The introduction of technologies like blockchain would help in keeping the managerial work transparent, free from politicization and corruption. Secondly, there is a need to incentivise the members to attend meetings regularly. In that regard, the members can earn points, redeem them and use them to their advantage. This will increase activity among the members of the SHGs and community engagement as a whole. To avoid interpersonal conflicts and power struggles, gyratory or rotatory management or governance should be followed such that each member has the opportunity to lead and manage the affairs. This will increase accountability and responsibility among the members and will achieve higher efficiency. The leaders of the SHGs need to be provided training in group dynamics and leadership so that they can run

their groups more democratically and effectively. Moreover, there should be stricter regulation and measures to avoid deviation from the pre-defined goals and objectives as well as the misuse of funds taking inspiration from the Grameen Bank Model.

There is a dire need to introduce formal skill building training for women and keep it limited to the informal sector where often the role of women goes unnoticed. There is a need to scale up this initiative to include entrepreneurial capacity building for all SHGs.

Conclusion

SHGs are an effective tool to alleviate poverty especially in rural India which lingers far behind and drowns in inequalities. SHGs can prove to be a life saviour especially for women like Rupa, which can make them empowered entrepreneurs and self-sufficient. It can contribute to our GDP. However, to be able to fully manifest itself as a success, there needs to be implemented reforms, changes and legislations to allow SHGs to work as full-time entrepreneurial groups away from politicization and discriminatory practices. The Government and civil society need to provide a supportive and conducive environment for these groups to thrive. With the right efforts and measures. SHGs can truly transform the rural economy of India bridging the urban-rural divide and leveling the way for a just, equitable and inclusive economy and society.

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From Fines to Imprisonment: The Efficiency of Criminal Penalties through an Economic Lens

By Ekanshi Makheja

Abstract

This article examines the role of criminal law in promoting economic efficiency, focusing on its function as a deterrent against coercive transfers. By framing criminal behavior through the lens of economic theory, it argues that market transactions are more efficient than coercive actions and that criminal law's primary purpose is to maintain this efficiency. The article explores various enforcement strategies, including monetary fines, imprisonment, and non-monetary sanctions, considering how these mechanisms deter both financial crimes and crimes of passion. The analysis further delves into behavioral economics, examining how discount rates and risk preferences influence the effectiveness of different types of criminal sanctions. In light of this, the article proposes an optimal framework for criminal penalties, balancing severity and probability, and highlights the practical implications for policymakers, the judiciary, offenders, and victims.

1. Introduction

1.1 What is criminal law?

Criminal laws are a set of rules that must be met to declare an event as a crime, but primarily their role is to act as a deterrent. Criminal law is a wide field ranging from crimes of passions such as murder to white collar crimes such as monetary frauds. The central aim of criminal law is to discourage individuals from committing offenses, and this is where economics plays a vital role. By applying economic analysis, we can assess whether the severity of a punishment generates enough disutility for the offender to act as an effective deterrent.

There has been enormous amount of work on the economics of criminal law majorly focusing on three aspects

- The tradeoff between the probability of apprehension and conviction and the severity of punishment
- The economics of law enforcement and criminal procedures

- The deterrent and preventive effects of criminal laws

1.2 Why criminal law?

It is often questioned why we need a separate body of law for certain acts when we already have tort laws in place. In tort law, the person harmed can sue for compensation, so why not extend this to criminal matters? The distinction is more apparent in some cases, such as in victimless crimes (like drug offenses or prostitution), where no one is directly harmed, and there is no obvious victim to file a claim. In essence, the existence of criminal law, rather than relying solely on tort law, is justified by the challenges of detection and enforcement, especially in cases where there is no immediate victim to report the crime. Hence we can not deny that criminal law is an important and much required set of rules for the society to function in a civil as well as economically sound manner.

2. Research methodology

For this paper, I conducted an in-depth study of two sections from Richard A. Posner's work, *An Economic Theory of the Criminal Law*. In the following section, I will examine and analyze his insights on *The Functions of Criminal Law* and *Optimal Criminal Penalties*.

3. Analysis

3.1 Functions of criminal law

The main function of criminal law that economists are concerned with is, it promotes efficiency. The burden of this section is to prove that criminal prohibitions lead to efficiency. While it is widely accepted that certain actions should not be committed due to moral and ethical dilemmas, I aim to set aside this conventional view and argue that acts deemed inefficient should not occur, independent of their moral or ethical implications. For the purposes of this article, it is essential to approach the issue from an academic and analytical standpoint.

Crimes are often categorized into two types: *crimes of passion* and *crimes for money*. Following is the analysis of how criminal law leads to efficiency in both types of crimes.

3.1.1 Crimes for money

- Tort fails due to coercive transfers

According to the Coase theorem, market is the most efficient way of allocating resources when the transaction costs are low. Laws (tort) that prevent this bypassing of the market promote efficiency. For example, if you want your friend's phone then it makes more sense to talk to your friend and pay her a price with which you both are comfortable rather than stealing it from her and later paying the amount that the court decides. This is because a voluntary negotiation allows both parties to reach an agreement that reflects the true value of the product to both parties. But this argument alone does not provide enough evidence for the credibility of criminal law, because when a thief steals a phone or anything for that matter, it's not because he wants the phone but rather, he wants the money that he can get by selling it. The market transaction that he bypasses is the exchange of his labour for money in a lawful occupation. As mentioned earlier the primary role of criminal law is to act as a deterrent, for which the punishment needs to be higher than the victim's loss. This ensures resource allocation through market interactions when transaction costs are low. For instance, if someone steals a valuable item, the penalty must cover both the loss to the victim and ensure that the offender cannot profit from the act. This discourages people from engaging in coercive transfers by making it less profitable than participating in the market. This reasoning underscores the importance of criminal law in maintaining economic efficiency by preventing coercive, non-market transactions. This extra fine ensures that stealing is always a losing proposition for the thief, thus reinforcing market transactions over coercive transfers.

To effectively deter coercive actions, punitive damages must consider the possibility that offenders may try to conceal their misconduct. While accidents, which are unintended consequences of lawful behavior, are harder to hide, intentional torts like theft are often carried out with efforts to avoid detection. Therefore, the optimal level of damages (D) must be determined by the formula:

$$D = L/p$$

Here, L represents the harm caused, and p is the probability of detection and punishment. If the probability of being caught is less than 1, damages must be increased accordingly to reflect the full extent of the harm caused.

For example, if the harm caused is \$10,000 and the likelihood of being caught is 0.1 (meaning only one in ten offenders is caught), the optimal damages should be set at

\$100,000. This ensures that the expected cost to the offender (pD) is equal to the harm they cause, discouraging coercive behavior by making it unprofitable to bypass lawful means.

- Tort fails due to solvency issues

Criminal law also comes into action when tort law fails due to solvency issues, i.e. the offender does not have enough resources to pay the fine. If a defendant's financial situation prevents them from fully compensating the victims or society through civil penalties, the criminal justice system can impose additional sanctions like imprisonment or higher fines.

3.1.2 Crimes of passion

A similar argument extends to crimes of passion as well. While crimes of money bypass explicit markets, crimes of passion bypass implicit markets such as love, marriage, and respect. These implicit markets, which are explored in growing economic literature such as Becker's work on family economics, also function on voluntary exchange and mutual benefit, just in less tangible ways. If an individual gains satisfaction from harming others (e.g., through violence) without compensating them, they are bypassing the explicit market system that would otherwise require voluntary exchange. However, we often overlook this explicit cost because the victim might not be the same person with whom the offender might have done legal transactions with. For example, when A rapes B, he is bypassing the market of marriage (he may or may not have married B) and the act of committing such a crime still disrupts the fundamental principles of market-based exchanges, where all parties are supposed to benefit. Hence, we can conclude that criminal laws lead to efficient outcomes even for crimes of passion.

3.1.3 Allowing crimes is inefficient

Crimes driven by interdependent negative utilities occur when an individual derives satisfaction from harming another, not for material gain, but purely out of malice or hatred. For example, murdering someone out of hatred rather than for financial reasons. Empirically, it's a safe assumption that such actions typically result in net disutility, as the harm inflicted on the victim rarely results in an equal or greater level of satisfaction for the offender.

Allowing these kinds of crimes is economically inefficient. When harm is caused purely because one person's disutility brings utility to another, it does not increase the overall wealth of society, even if—by some unlikely measure—the total happiness seems to rise.

Moreover, permitting coercion would lead to significant inefficiencies. Potential victims would invest heavily in self-protection, while potential aggressors would expend resources to overcome these defences, with little to no productive value for society. This arms race would divert resources away from activities that could increase societal wealth.

Some crimes of passion are costly and inefficient efforts at self-help. A slanders B, and B, instead of suing A, kills him. The suit would have given B almost the satisfaction that killing A did, and at far lower social cost.

There are three key enforcement responses to the challenge of deterring antisocial behavior in society, given the impracticality of relying primarily on fines.

1. **Non-Monetary Punishments:** The first response is to impose punishments that create disutility in non-monetary forms, such as imprisonment or even the death penalty.
2. **Enhancing Crime Detection:** A second approach is to reduce the probability of offenders concealing their crimes by maintaining a police force. This lowers the D in the deterrence formula ($D = L/p$), as the likelihood of being caught increases.
3. **Preventive Measures:** The third response is to prevent criminal activity by punishing preparatory acts (category (4)), which involves both law enforcement and proactive policing to stop crime before it happens. Public policing is generally considered more efficient than private due to economies of scale and concerns about the potential for private armies undermining political stability.

As a result, fines are paid to the state instead of the victim, though victims can still seek damages if the crime qualifies as a tort. This system balances public enforcement with victim compensation.

This argument may appear to align with left-wing views, suggesting that "criminal law keeps the lid on the lower classes," but it is actually grounded in efficiency. It argues that different sanctions should be used depending on an offender's wealth. Fines, which are common in criminal cases, are often lower than the damages awarded in tort cases for two reasons. First, the government invests resources to increase the probability of criminal punishment

compared to tort suits, which allows for a lower optimal fine. Second, fines carry additional non-pecuniary disutilities, such as stigma and restrictions like losing the right to vote, making them more severe punishments than their monetary value suggests. Tort judgments, on the other hand, do not carry this level of stigma.

3.2 Optimal criminal penalties

I shall assume that most potential criminals are sufficiently rational to be deterrable- an assumption that has the support of an extensive literature.

3.2.1 Limitations on Severity, with Special Reference to Fines

In this section we explore why criminal punishments aren't always death? There is a three-step logic to this answer, first, someone might violate the law accidentally, such as getting into a car accident, if punishment of such accidental crimes is death, then people would avoid driving completely which is socially inefficient. Second, even though law provides safeguards like intent and necessity, there can be errors. Third, the system can solve this issue by choosing less severe punishments while making it easier to prove guilt. This way, even if errors occur, the consequences aren't too severe, and people won't over-avoid certain activities.

Hence, there is a need to balance the severity and the probability of punishment in order to deter people from committing crimes at lowest costs. An existing model suggests:

Expected punishment = amount of fine * probability of getting caught

This formula implies that high fines and low probability of getting caught yield the same deterrent effect as low fines and high probability of getting caught. It is understood that increasing the fine puts no additional costs on the legislative system, hence we should choose a combination with high fines and low probability of getting caught. The economics models would then imply that the maximum deterrent effect at lowest cost would be attained by a combination of very low probability of apprehension (close to zero) and an extremely high fine (close to infinity).

However, the model fails to account for multiple behavioral factors leading to numerous drawbacks and logical flaws in the model. Some of the factors are stated below-

a) For risk-averse individuals, raising fines is particularly costly because, according to prospect theory, the pain of losing a large amount outweighs the satisfaction of gaining an equivalent amount. This heightened sense of loss increases the overall social cost, even though the extra burden isn't reflected in physical money going to the state.

b) For risk-seeking criminals, a low probability of getting caught does not sufficiently counterbalance the increased cost of the fine. As a result, the deterrent effect of fines is weaker for them, as they are more inclined to take the gamble despite the higher potential penalty.

c) Raising fines excessively can lead to a solvency issue, where criminals unable to pay are excluded from the system. In such cases, non-monetary sanctions like imprisonment become necessary. These penalties not only reduce the individual's future wealth but also work in situations where the offender is extremely wealthy and unaffected by fines. After serving jail time, the person's lawful business prospects are likely to diminish, adding to the deterrent effect.

3.2.2 Non-monetary sanctions - afflictive punishment and imprisonment

Afflictive punishments:

These are punishments meant to provide disutility to the offender by inflicting pain upon them, such as, death penalty, flogging, whipping, the strappado, picketing, the wooden horse, ducking, etc. such punishments were prevalent all over the world before and during the pre-nineteenth century, but today we majorly focus on death penalty. The economic logic behind the inefficiency of afflictive punishments is that momentary pain does not deter a person from committing the crime, especially if they have never suffered that pain even once.

The punishment for a murder cannot be just fine. Suppose, the probability of getting caught is less than 1, say 0.5%, then a wealthy individual with ₹1 lakh, willing to commit a crime would only perceive the cost of the crime as ₹50,000 when deciding to commit it, which is far less than their total wealth. This also shows that harsher punishments for violent crimes compared to white-collar crimes shouldn't automatically be seen as class bias; rather, they reflect the need to adjust penalties to account for the lower likelihood of apprehension, ensuring sufficient deterrence. The key point isn't that the punishment for murder should match the victim's loss, but rather that it should be severe enough to make the crime

unprofitable. Imprisoning the murderer for life or, if they are wealthy, confiscating their assets would impose a cost far greater than any potential gain from the crime. This ensures that the punishment outweighs any possible benefit, making the act not worth committing.

The issue of determining the appropriate punishment for murder presents a complex dilemma, with two opposing arguments:

1. **High Initial Penalty:** This view suggests that if the first murder is punished severely, such as with the death penalty, it will dissuade individuals from committing any murder at all. The severity of the penalty serves as a strong deterrent.

2. **Higher Punishment for Additional Murders:** This perspective argues that if the punishment increases with each additional murder, it will discourage further killings. For instance, a murderer may avoid killing witnesses if they know the penalty for multiple murders will escalate. On the other hand, if the punishment for the first murder is already extreme, they may feel there is no additional cost to committing more murders.

Additionally, a murderer serving a life sentence has little disincentive to commit further violence in prison, as their punishment cannot escalate further.

Both approaches highlight the challenges in crafting a punishment system that effectively deters murder at different stages.

Imprisonment:

The dilemma of choosing between low probability of getting caught with longer sentences and high probability of getting caught with shorter sentences has already been discussed in the previous sections. Both approaches result in similar imprisonment costs, but the former saves on police and trial expenses. Extending on this argument is a view that lower probability of getting caught is unfair, as it leads to inequality amongst criminals. However, this is like saying lotteries are unfair because they lead to inequality amongst the players. In both cases, fairness can be maintained if the expected costs and benefits are equal for participants. Just as participating in a lottery is voluntary, so too is engaging in criminal activity—one can opt out by simply not committing a crime, making it, in this sense, a voluntary system.

In economics, a **discount rate** refers to the rate at which individuals value future outcomes compared to immediate ones. Long prison sentences may provide less disutility to offenders if their discount rate is high. For example, if an individual's discount rate is 10% then, 10 years of jail time feels only 6.1 times worse than one year of jail time instead of 10 times.

Similarly, twenty years of jail time feels only 8.5 times worse. Hence, this economic analysis claims that long sentences with less probability of getting caught are inefficient in terms of deterring a person from committing crimes.

Criminal penalties—whether fines, imprisonment, or even death—carry significant costs. Despite these costs, criminal sanctions remain the most effective means of deterring coercive transfers, which are a key focus of criminal law. These considerations have crucial implications for the development of substantive criminal doctrines.

Conclusion

This study provides a comprehensive analysis of criminal law through the lens of economic efficiency, offering a novel perspective that moves beyond conventional moral and ethical arguments. By categorizing crimes as either financially motivated or crimes of passion, and examining the role of criminal law in deterring coercive transfers, this study demonstrates the centrality of economic deterrence mechanisms in maintaining social order. The key finding is that criminal sanctions—whether in the form of fines, imprisonment, or non-monetary punishments—are essential for preventing socially inefficient outcomes, particularly when tort law fails due to issues of solvency or detection. The discussion also highlights the importance of balancing punishment severity and the probability of detection to minimize social costs while maximizing deterrence.

The economic approach emphasizes the necessity of designing criminal penalties that account for behavioral factors, such as risk aversion and discount rates, in determining the most efficient deterrence strategies. Ultimately, this research argues that while criminal law imposes significant societal costs, it remains the optimal framework for preventing both coercive and passion-driven crimes, ensuring that market-based resource allocations prevail over inefficient, coercive transfers. The conclusions drawn from this analysis pave the way for future discussions on refining criminal law to better integrate economic principles while remaining sensitive to practical limitations and ethical considerations.

Future and Limitations

Future research should explore the influence of behavioral economics, particularly discount rates and risk preferences, on criminal behavior and sanctions, while also investigating the cost-effectiveness of preventive policing. Additionally, the impact of socioeconomic

inequality on the fairness and efficiency of criminal punishments, along with empirical evaluations of long-term deterrence, warrants further study. However, this research faces limitations due to its assumption of rationality in criminal behavior, the simplification of coercive transfers, and the generalization of theoretical models across different crime types. Moreover, the exclusion of moral and ethical considerations may limit the practical applicability of its conclusions.

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Behavioural Economics of Nostalgia: A Policy Perspective on Various Industries

By Devika Suresh, Miranda House

The retro packaging of Amul, The re-runs of popular classic Doordarshan TV shows such as Ramayan and Mahabharat during the pandemic, the trendy remixes of old Bollywood songs, the resurgence of the Y2K style in fashion, the 80s and 90s themed cafes and restaurants popping up in major cities, the revival of popular classic franchises such as Jurassic Park and Star Wars, the reboots and reunions of yesteryear sitcoms, even using legendary actors in advertisements and making them repeat their popular dialogues - all these market trends aren't mere coincidences, but a clever way of wielding the tool of nostalgia to drive cultural consumption. As a compelling influence within culture globally, it has become a key driver of demand in various industries. A very recent example that proved to us the power of combining nostalgia with marketing is the Harry Potter x Kinder Joy campaign. Harry Potter is not just a book/movie series for its fans, it's a blast from their past, an emotional nostalgic reminder of their childhoods. All of a sudden, it wasn't just Kinder Joy's targeted audience of children racing to buy the chocolates – convenience stores were filled with lines of college students and adults trying their hand at procuring a Harry Potter figurine. This masterstroke of a strategy was more than just a collaboration - over 8 million units were sold within 3 months, and 3 million of those units were sold in India, generating ₹150 crore in revenue. There was also a 15% increase in the company's annual profits.

How do our feelings for the past shape the choices we make today? What is the economic reasoning behind a sentimental craving for the past? What is its impact on cultural industries? What are some potential policy interventions that can play a role in harnessing its potential? With technological advancements such as Artificial Intelligence, how can businesses and policymakers use it to their advantage? What are the challenges that must be navigated when nostalgia-inducing policies are put into place?

The Cambridge Dictionary defines nostalgia as a feeling of pleasure and also slight sadness when you think about things that happened in the past. Nostalgia knows no bounds—it touches everyone, young and old alike. Since the beginning of time, people have been swept

away by memories, reminiscing about the moments that shaped their lives. Nostalgia as an emotion, while having neurological explanations, is very relevant to consumer behaviour.

The 'Nostalgia Effect' or 'Nostalgia Consumption' refers to the phenomenon whereby the value that we place on reliving past experiences and experiencing comfortable familiarity supersedes the importance of saving money, and it talks about the undeniable influence that nostalgic biases have over our willingness to spend money.

There are multiple behavioural economics theories that can be used to explain this effect, one of them being Loss Aversion, which was proposed by Nobel prize-winning psychologist Daniel Kahneman and his associate Amos Tversky in 1979. Loss aversion is a cognitive bias that explains that often, the psychological impact of a loss overrides the pleasure that is felt from an equivalent gain. It tells us that sometimes, individuals are risky not to gain something, but to avoid unfavourable circumstances - the pain of losing a huge sum of money from your savings is much more than the happiness felt in earning the same amount. Missing out on a social gathering and regretting it later is felt more intensely than the enjoyment experienced while attending it.

Nostalgia often acts as a counter to loss aversion, as it reminds consumers of a past they feel like they must have lost over the years and serves as a coping mechanism. Whether it be indulging in a limited-edition bottle of the 90s-themed Coca-Cola or splurging on vintage clothing, nostalgia can be seen as a sort of emotional response to the 'loss' that might be perceived in a loss aversion situation.

Another such theory is the Status Quo Bias, which talks about how people choose to remain in their current state of affairs rather than welcoming a change, even if said change can have a more positive impact on their lives. We crave familiarity just because it is comfortable, and the innate desire to step out of our boxes and try new things is curbed because of this. It makes us take less and less risks, and this is reflected in our consumption behaviour as well. Companies use the status quo bias and the rose-tinted nature of a nostalgic lens to their advantage by bringing back 'classic' and once-popular versions of products. It also explains the concept of brand loyalty, wherein even in the presence of newer, cheaper, and just

altogether better alternatives in the market, customers choose to continue to buy a particular brand just because of the trust they have in the brand and the positive emotions attached to it.

Bounded Rationality, coined by Nobel prize-winning scholar Herbert A. Simon, is ‘the idea that people make decisions that are satisfactory rather than optimal because of limitations on their rationality’. These limitations can be factors like incomplete information, cognitive limitations, social limitations, time, etc. Instead of spending our time and resources in making sure that we make the ‘right’ or ‘best’ choice, we often aim to be satisfied with the choices that we eventually end up making. For example, we may choose to miss out on a good opportunity just because we do not know a lot about it.

Again, how does nostalgia come into play here? Consumers are bound to pick products that they are familiar with, just because they know that they will for sure be satisfied with it. It can act as a cognitive limitation and discourage them from analyzing other options, and just like what bounded rationality states, they end up with a satisfactory option over what might have been the optimal option.

NOSTALGIA IN CULTURAL INDUSTRIES

The impact of nostalgia, coupled with such cognitive biases meant that industries could successfully capitalize on this phenomenon, and could use it as a force to drive economic growth. Cultural industries through various platforms such as music, film, television, and advertising have employed elements of the past as a marketing strategy to evoke memories and emotions in their audiences to boost brand loyalty and sales. This is because, amidst economic uncertainties and political instabilities, cultural industries are recycling and revamping existing content as a way of assuring consumer approval without incurring the costs of originality. Let us take a look at some examples of this in recent times:

Fashion

Fashion is perhaps one of the most prominent industries where we can notice the nostalgia effect happening in real-time. Recently, there has been a remarkable resurgence of Y2K style

(clothing trends of the 90s and 2000s) and flared jeans, velour tracksuits, baby tees, and low-rise jeans have all come back with a bang. Brands are jumping on this trend too, and have started reissuing their classic pieces from a few decades earlier due to their increase in demand. In India, an equally exciting revival has been happening, of beautiful traditional textiles and handicrafts, resulting in a resurgence of Chikankari embroidery, Khadi, Bandhani and tie-dye prints, Banarasi and Kanjeevaram sarees, etc. Traditional jewellery such as Kundan, Polki, and temple jewellery is also back in style, as well as retro fashion inspired by 1970s and 1980s Bollywood - they're all being celebrated in today's dynamic fashion landscape.

Film and Television

Just recently in India, we observed the movie-going audience go crazy over the re-release of the coming-of-age Bollywood blockbuster, *Yeh Jawaani Hai Deewani*, which has earned around 11.6 crore rupees so far. The nostalgia-driven box office successes of re-releases show us that a major part of the population is very much nostalgic for their 'good old days'. There has also been an upward trend of more reboots and sequels of popular classic movies getting released, and this surge in reboots can be attributed to audiences seeking comfort and joy in familiar characters and cinematic universes. A study conducted by GWI has shown that 71% of consumers are nostalgic for movies and 60% for television, which drives home the fact that almost all forms of media are catalysts when it comes to nostalgia.

Music and Gaming

A resurgence of retro trends meant a rise in the popularity of vinyl records as well, because of both listeners and major artists. The evolution in music consumption habits also meant that listeners could now easily access and rediscover music from many decades prior, which furthered the notion of a nostalgic musical experience. Nostalgia was also used by the gaming industry to boost sales. Researchers have recognised video games as a 'potentially powerful elicitor of nostalgia', and game designers sometimes rely on retro gaming aesthetics and historical recreations to attract players and evoke their longing for a simpler, happier past.

The influence of nostalgia on marketing and consumer behaviour is not a negligible one. Policymakers are presented with a unique opportunity to harness its economic potential,

especially since they play such an important role in shaping consumer behaviour and cultural identities.

Let us see how policy design with the help of a nostalgic lens can have significant economic implications in various industries:

Cultural Policies

Media and content regulation policies can be drafted in such a way that they provide encouragement to generate content or continue the telecast of content that celebrates the heritage of culture and diversity while remaining entertaining to viewers of all ages, especially the younger viewership. They should be provided funding and/or grants, which aids in its promotion.

Urban Planning and Development, and Tourism, Restoration of historical monuments and heritage by integrating nostalgic elements in city design, such as reviving old architecture, and preservation of old street designs, gardens, and marketplaces which will foster a sense of community and belonging. Policies should also aim at combining technological and digital solutions with vintage architecture/heritage sites, which will further the development of smart cities as well. Tourism is another industry that benefits a lot from nostalgia, as tourists are always attracted by historical storytelling and cultural heritage.

Emphasis should be placed on the proper preservation and maintenance of these elements of tourist spots, and resources should be allocated towards this cause. Restoration of historic buildings, monuments, forts, and museums should be incentivized, through subsidies, grants, and tax breaks for individuals/businesses undertaking such activities. While doing all this, it is also important to implement policies that prevent overcrowding and environmental damage at tourist attractions, to ensure that it doesn't lead to over-commercialization, and instead promotes sustainability.

Generating Employment and Reviving Industries

As traditional textile and handloom industries are on the rise, policies that support their incubation, such as providing marketing and advertising support, subsidising raw materials, and promoting the revival of traditional business throughout the country should

be implemented. Since such industries rely heavily on a skilled workforce and craftsmanship, these policies can also pave the way for generating employment and ensuring their skill development. Policies should support the digitization and preservation of important and engaging archives, such as old newspapers, documentaries, music, film, and music, to ensure that they always stay accessible to younger generations.

While one on hand, policymakers are presented with opportunities, they have to face challenges on the other - it is a tricky situation. Striking a balance between digitization and tradition is very important, and excessively profiting off of the charm of nostalgia can lead to over-commercialization, which ultimately dilutes the authenticity that made it special in the first place. Policies must also cater to all generations, not just a certain target demographic. While AI-driven analytics and personalization can be used to predict and prepare for emerging nostalgia trends, policymakers should keep in mind to use them wisely and with caution. Too much of anything is not a good thing, and so is the case with nostalgia. Resistance to change and modernization should not be compromised for its sake, rather an integration of traditional and modern elements is what is ideal. Trends are cyclical, even the nostalgia-induced ones. Policies should be aimed at long-term sustainability, and not at short-term fads whose future cannot be accurately predicted. It's all about finding the equilibrium point where progress and nostalgia can coexist, without losing their true essence.

CONCLUSION

The Friends Reunion Special is more than just a reunion, the Harry Potter figurines in your Kinder Joy packet is more than just a figurine. It is more than the bittersweetness of nostalgia, it is an economic force shaping decision-making in various industries and policies. With a thorough understanding of the behavioural economics behind it, and implementation of thoughtful policy measures, we can capitalize on nostalgia's influence in a way that guarantees maximum productivity. As economies try to navigate between rapid urbanization and modernisation, nostalgia-driven initiatives serve as a bridge that connects the past and the present in a meaningful manner, inspiring future generations.

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Discovering The Human Behind the Policy: Why Is Policy Design the Way It Is?

By Manya Marwah, Miranda House

When we consider the implications that policy and policymaking have on governance and political functioning, a study of human behaviour and ideology is essential in situating policy design in the larger framework of policy making, which comes before policy aims are identified, consequences are anticipated and courses of action are discussed. A major tenet that has conflicting influence on the outcomes of these processes is the elite versus group models of thought.

Here, on the one hand where it is believed that the ruling elite has a solitary expressed interest, the other attributes the product of policy formulation to a collective group struggle. Though both theories are primarily based in the pluralistic form of society that is in most places prevalent, we notice an oscillating incidence of these two effects on current society. Here, while elite theory may generally be more prominent, a socialist, or perhaps idealist, perspective professes the need for a more diverse, public-oriented viewpoint in public policy. When this effect emerges amidst pluralism, is where we notice the surfacing of social classes.

ANALYSING THE INCENTIVES OF POLITICAL ENTITIES

A skeptic of the elite theory can be found in the economics of public choice, which de-romanticizes the aspirations placed on the government and state, essentially humanizing it to a “human community” (Max Weber, 1918) rather than an institutional shrine for public interest. The theory extracts its conclusions of collective economic decision-making essentially as a study of human behaviour, especially emphasizing the individualistic and natural affinity of incentive-driven behaviour and self-interest exhibited by independents within the larger context of the state.

We can relate the government or state to the elite class or ‘ruling party’, where it is “less numerous, performs all political functions, monopolizes power and enjoys the advantages that power brings”, with “a manner that is now more or less legal, now more or less arbitrary and violent,” (Gaetano Mosca, 1939).

The incentive of a politician in the current social context is predominantly that of power and to get re-elected, rather than higher values and concern for the public which is accepted as the preferred belief, or those of nationalism and nation-building that were prevalent say, at the time of the Independence movement. We receive, as a result, policies that appeal to the larger sentiment, the morality question quite out of the picture.

We can understand the relationship between political leaders and utilization of public economic resources for policy making with Milton Friedman’s theory, where he compares how resources would be economized depending on who they belong to, and on whom they are being spent.

In the case of policy implementation, government individuals would be spending money that neither belongs to them, nor has any benefit on their economic condition. Thus, this money would only serve to seek private incentives and, in most cases, not the larger interest.

		On Whom Money is Spent	
		Yourself	Someone Else
Whose Money is Spent	Yours	Economize and Seek Highest Value	Economize, but Don't Seek Highest Value
	Someone Else's	Don't Economize, but Seek Highest Value	Don't Economize and Don't Seek Highest Value

THE CITIZENS’ POINT OF VIEW

Another issue can be seen on the flip side of contributors to policy making, that is the public, or the majority group. Since it must be true that not all groups within this majority have an equal contribution, opportunity, or voice in this process, the interest of a specific influential community or group would be best expressed as compared to others, with the assumption of natural self-interest, ofcourse.

The purpose of a perfect pluralistic society where all diverse interests are expressed is thus not fulfilled in real practice, and culminates in an eternal struggle of classes.

A further analysis of this phenomenon can be done through the principles of asymmetric information distribution. Akerlof illustrated the theory with reference to an imbalance of information possessed by buyers and sellers of a particular commodity, which ultimately leads to “market failure”. Here, the information of whether the quality of that product is good or bad is irrelevant to its market price, and stays with the seller. The consumer will thus neither be able to, according to him, extract the true value of the product nor the expected value.

We can relate this concept within the public as well, where distribution of information and resources available to attain this information, that is general awareness and policy education, across different communities of people is askew. This is generally the case with most capitalist societies, especially with India, where the impact of education, news and awareness is largely unequal. What we see is the birth of groups within a public that would not perhaps have much interest in the policy making process at all, becoming instead merely a voting bloc to fuel the incentives of politicians that were talked about earlier.

This can even occur with the richer levels of society, who become special interest groups that may fund political parties for personal monetary profit of politicians or otherwise, and as a result their interests are favoured over others.

A similar scenario can be identified within the larger bureaucratic economy, where policymakers and government officials hold more knowledge of policies and issues than the average citizen who will, in the long run, not derive any benefits.

An interesting analysis of the behaviour of individuals towards policy issues can lead us to believe that the public will not really hold much of an opinion or contribution to the actual process of policy design, not only because politicians are driven by private incentives, but through a simple cost-benefit analysis.

Statistically, it is virtually impossible for a single person’s opinions or ideas to be reflected in national policies, of course except in some cases like that of lobbyists or extremely influential people. Thus, the interests of an individual are unlikely to be reflected in policies, not even when they would have perfect information about the particular issue at hand, the plan of action as well as its political background. The cost of obtaining this enormous amount of information is much greater than the benefits that one would receive from this effort, as the individual’s concerns will most likely not even be expressed at a further stage.

This leads the average citizen into a state of rational ignorance, where they would not derive any benefit from first educating themselves of the issue, and then attempting to be an active part of the policy making process, because the final outcome would unlikely be altered by this solitary effort. The average citizen, therefore, does not particularly have any incentive to participate in this policy-making process, even if it was possible for each individual to contribute.

This could be different in the case of communities of groups, however, who have a defined political goal and are adamant to achieve these. We notice that, in these cases, even if every member is not in the state of perfect information, but these common interests are present across a very large number of people, then they are likely to contribute and participate in the policy process. Their ideas and concerns will likely dominate, perhaps due to the polarisation of ideas in this case where there are a phenomenally large number of individuals.

CONCLUSION AND FURTHER EVALUATION

The main ideas or conclusions that we can derive from the above analysis of inclinations of different groups towards public policy and the policy-making process can be summarized as follows:

- The primary incentive of politicians is the natural tendency of self-interest, where election to a position is the motivation for introduction of policies, rather than policy ideation being the objective of election to that particular position.
- The average citizen would neither contribute nor be an active part of the policymaking process unless possibly they are part of an organized group struggle about which they are passionate.

These conclusions lead to a confusing collection of forces that come into force, acting as the motivation behind the type of policies that eventually become effective in any state. There are thus conflicting ideas in the field of welfare economics as to how incentives should be aligned while public policies are being formulated in order to bring about economic and social prosperity.

A probable way of doing this could be to introduce a more participative democracy where there is a more diverse set of representatives at the centre such that there is more motive for the public to be involved in political processes. A more integrated government could perhaps dissolve the separation between the two groups where the government is not an elite-controlled or out of reach entity. This could even be achieved to some extent by remodelling voting systems. There is no perfect model or strategy but the “proportional voting system” comes quite close to the above ideals, where there is a range of relatively diverse elected representatives as compared to other voting systems; there is much less concentration of power too. A more fair and unbiased dissemination of political education could further aid this cause.

Aligning politicians’ interests with higher values apart from private incentives such as those of collective socio-economic growth or national reformation could lead to more socially-oriented policies with more holistic coverage, which do not only cater to majority public sentiment but also looks at a broader, more far-reaching perspective. This solution, although ideal, is possibly almost impossible to implement in reality, an area where economists and social scientists have yet to figure out a way where there is a balance of government and public interests that benefit the state as a whole. One where the motive of self-interest is, not abolished (that would be quite unfeasible), but diluted so that the bigger picture of social welfare can be painted.

In some ways this has been achieved, where the government uses its power of taxes, subsidies and regulations to monitor the country’s welfare. In other ways however, this power has, more often than not, been misused for the achievement of personal intentions.

The need of the hour, hence, before any policy can be designed, is to not only aim for public actions to be directed towards social well-being, but to also consciously evaluate where the motives of policymakers are administered.

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NEP 2020 for Undergraduates: Lofty Promises, Flawed Execution, and the Path Forward

By Annika Gwalani

India's first National Educational Policy was formed in 1968 which was later modified in the years 1986 and 1992. After almost three decades, the Indian Education system had the formulation of the National Education Policy 2020. It was introduced as a transformative reform aimed at revolutionizing the Indian education system. Its objectives include making education more holistic, skill-oriented, and globally relevant while fostering inclusion and equity. While the policy's vision is laudable, its implementation, particularly at the undergraduate level, has faced significant criticism. We students have observed first-hand the practical shortcomings of NEP's rollout and its unintended consequences. The three most pressing of these are poor workforce training, lack of funding for critical features, and a missing monitoring mechanism.

The NEP's adoption was rushed, leaving universities and colleges with inadequate time to prepare. Institutions were expected to overhaul curricula, introduce new courses, and train faculty almost overnight. This haste undermined the systematic planning required for such a monumental transition. Professors and administrative staff were unprepared for the NEP's drastic changes. Due to a lack of training and faculty members' unfamiliarity with interdisciplinary and skill-based teaching approaches, the quality of teaching was inconsistent.

Moreover, the NEP's ambitious goals were not supported by sufficient financial or infrastructural resources. The policy advocates for increased public funding in education, aiming for 6% of GDP to be able to successfully bring about reforms that require greater expenditure. While this target is ambitious, India has historically spent around 3% of its GDP on education (Aithal, 2020), far below the target, leading to a shortfall in resources required to execute the NEP's reforms. For instance, the option of choosing from the pool of 22 constitutional languages as part of the Ability Enhancement Compulsory Course (AECC) was provided to promote multilingualism and inclusivity (Shukla, 2020). However, most institutions could only provide resources and faculty for a few of the most commonly studied languages. Due to this shortfall, vulnerable communities that spoke more uncommon languages suffered the most. Trusting the system, they took admission to institutions that

they traditionally did not join due to language barriers, but they ran head first into an invisible wall of the same problem due to the botched rollout (Samar, 2022).

The lack of adequate funding has also amplified another challenge of the Indian education system- the lack of digital infrastructure in underfunded schools serving marginalized communities. The NEP relies heavily on technology to deliver its vision of flexible and personalised education. However, India's stark digital divide excluded many of her students from

experiencing many of the policy's intended benefits. This is particularly evident in Bihar and Odisha where internet access is intermittent and device availability is limited. This hindered the effectiveness of digital interventions and widened existing inequalities, and has made it a policy largely effective only for the wealthy (Saluja, 2023). A reality brought about by the failure of the designing bodies to account for ground realities and evidence.

Finally, the policy lacks a central, standardized framework for tracking progress, evaluating outcomes, and addressing bottlenecks (Mandal, 2023). Without systematic data collection and analysis, it is difficult to measure whether initiatives like vocational training, digital learning, or GER targets are being met. Although a portal was introduced in 2023 for universities to report data to be further used for tracking progress, the mechanisms utilised including quantitative tools and metrics, are not transparent. This opacity undermines confidence in the system and its ability to drive evidence-based adjustments. Successful policy implementation also requires regular feedback to course-correct strategies. However, the NEP provides no mechanism to ensure this at the national, state, or institutional levels.

What Could Have Been Done Differently

The aspirations and goals of the National Education Policy (NEP) could have been brought to life with greater impact through a more nuanced and strategic approach of opting for phased implementation and ensuring wider stakeholder engagement.

A gradual, phased rollout would have allowed institutions to gradually adapt to the new framework. Pilot programs could have been introduced in select universities in high-literacy states such as Kerala or Tamil Nadu to identify challenges and refine strategies before nationwide implementation. This would have minimised the rushed transition and accompanying issues of faculty unpreparedness and infrastructure inadequacies (Kulal et al., 2024).

The NEP could also have been more impactful had it incorporated consultation with a diverse range of stakeholders, including students, faculty, and education experts, at both the design and implementation stages (Joshi, 2023). While the Ministry of Human Resource Development formed a committee led by Dr K. Kasturirangan and consulted vice-chancellors, cabinet members, and other authorities, critical voices from social scientists and student bodies were largely excluded. These on-ground stakeholders were experiencing the realities of the system and had concerns about the commercialization of education, language policies, and the lack of attention to regional needs and social diversity (Pawan, 2020). Incorporating their evidence would have avoided disparities and led to a policy that truly reflected the ground realities of India's educational landscape, fostering broader acceptance and more successful implementation across all levels of society.

Recommendations

To enhance the effectiveness and equity of the NEP, it is essential to foster transparency through robust evaluation mechanisms, and stakeholder management and critically increase funding to improve digital access.

The government should establish a transparent monitoring system that releases biannual progress reports, using clear and quantifiable metrics to track the implementation of NEP initiatives and their results. This would allow for timely interventions and adjustments, ensuring that the objectives are met effectively. In addition to these short-term evaluations, longitudinal studies should be conducted to assess the long-term impact of the NEP on student outcomes such as academic performance, career prospects and socio-emotional well-being (Kulal et al., 2024).

Additionally, the government could form a committee consisting of social scientists, student representatives, teachers and parents from diverse socio-economic and regional backgrounds (Lakshmi et al., 2023). This committee would continuously gather feedback and incorporate their insights into policy revisions to make the NEP representative and relevant.

Finally, to produce better outcomes going forward, the government should increase expenditure on education to meet the target of 6% of the GDP. This could include investments in digital infrastructure, teacher training, and digital resources to bridge the regional disparities (Viswanathan, 2020). For instance, expanding internet and device access to rural areas by leveraging the PM-WANI (Public Wi-Fi Access Network Interface)

and PMGDISHA (Pradhan Mantri Gramin Digital Saksharta Abhiyan) initiatives can improve digital penetration in underserved regions and achieve NEP's vision of equitable digital education.

Conclusion

India's rollout of the New Education Policy of 2020 was hampered by the lack of training provided for those responsible for its implementation, poor funding and a delayed and opaque monitoring system. A hurried rollout prevented better testing and fine-tuning and also excluded some of the most critical stakeholders from the policy design and implementation process.

Implementing a transparent monitoring mechanism that assists improvements, engaging all the impacted stakeholders, from design to last-mile implementation, and providing essential funds will take the policy from a highly lauded but paper tiger policy to a ground-level victory that brings contemporary and valid education to all.

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Book Review

Ancient Wisdom and Renaissance Realpolitik: Machiavelli Meets Kautilya

By Annika Gwalani

Is it better to be feared or loved? This question lies at the heart of two of the most influential treatises on statecraft and governance.

Written by Niccolo Machiavelli and published posthumously in 1952, *The Prince* remains one of the most potent political treatises to have ever been written in Western history. He was a Florentine diplomat and philosopher, and his book is a practical yet much-debated piece of advice on political leadership and the dynamics of power. His background as a diplomat witnessing the turbulent politics of Renaissance Italy heavily influenced his perspectives. The book primarily argues that the ends justify the means for rulers seeking to maintain power and stability, regardless of any moral considerations. This review aims to analyse *The Prince* through a comparative lens with Kautilya's *Arthashastra*, an ancient Indian treatise on statecraft and military strategy. By juxtaposing Machiavelli's pragmatic approach with Kautilya's, this review aims to outline the similarities and differences in political thought across different cultures and historical contexts.

Where *The Prince* is a work of modern political philosophy, Kautilya's *Arthashastra*, composed in the 4th century BCE, is a seminal text of political theory and statecraft. Kautilya, otherwise known as Chanakya, provides a comprehensive treatise on statecraft, economics, military strategy, and governance. It is believed to have been written in the 4th century BCE because he was the chief advisor and prime minister to Emperor Chandragupta Maurya, the founder of the Maurya Empire.

Main Thesis

The main argument in *The Prince* is against *Arthashastra*, which holds that rulers should not be quixotic and need at times to be amoral in the pursuit of ensuring the stability of their states and holding on to power. According to Machiavelli, being feared than loved, deceit, manipulation, flexibility to change in differing circumstances—all of these are important and necessary.

However, *Arthashastra*, as its name suggests, is a broader manual on statecraft, economics, military strategy and law. It advises the ruler to be wise and practical, to have a good understanding of the welfare of his states and its peoples. Kautilya also goes on to explain

the importance of espionage, alliances, and economic prosperity in building a powerful state.

Political Philosophy and Ethics

The Prince is popularly regarded as a manual for ruthless and cunning leadership. Machiavelli says that since the ends justify the means, rulers have no compunctions in using deceit, cruelty, and manipulation to fulfil their objectives. He separates politics from ethics and claims that moral considerations are secondary, while the pragmatic needs of the state are fundamental. His views on human nature are pessimistic; he believes that people are inherently selfish, unkind and untrustworthy, which justifies the use of control by rulers. For instance, in his book, he has cited an example of Cesare Borgia's rightful use of cruelty in establishing control over Romagna, where he ruthlessly executed disloyal leaders in order to instill fear and obedience.

In contrast to this, Kautilya's Arthashastra is a blend of ethics with political pragmatism. Although Kautilya, too, advocates using deceit and strategic manipulation in statecraft, he emphasises that the ruler must ensure the welfare and prosperity of the state and its people. To accomplish this, he advises the king to establish public infrastructure such as roads, irrigation systems, and markets to facilitate trade and agriculture. The treatise gives ethical guidelines for rulers, with emphasis on justice, duty, and adherence to *dharma* (moral law).

Kautilya's view of human nature is not as pessimistic, but rather balanced, and therefore he has taken into consideration the self-serving aspect and the ethical element. He suggests the kings to be self-disciplined, avoid indulgence in luxuries or pleasures and be accessible to their subjects to address their grievances.

Statecraft and Governance

Both Machiavelli and Kautilya provide detailed advice on statecraft and governance, their standpoints essentially differ in terms of scope and focus.

The Prince is more concerned with the acquisition and maintenance of political power. Machiavelli imparts knowledge on how to deal with internal and external threats, how to uphold their public image, and how to manipulate political alliances. He says there is a need for military power and that a prince should be ready to be a lion in his force, and a fox in his guile. He thereafter elucidates the argument between fortune and *virtu* by a story of

Agathocles of Syracuse, who gained power through his rigid decisions to remove competitors by calling them to a meeting and then killing them.

Kautilya's text offers a more comprehensive guide covering a plethora of administrative, legal, economic, military matters as well as foreign policies.. Kautilya provides detailed instructions on the duties and responsibilities of various officials and emphasizes the importance of a well-organised and efficient administrative system. He advises the appointment of ministers based on their merit and loyalty and recommends regular audits to prevent corruption and inefficiency as well.

He believes that taxation and trade fall under statecraft, so again the administration of resources should be strategic. But he simultaneously puts forth an idea of equitable taxation where taxes are levied in a way that does not burden the masses, suggesting a tax rate of one-sixth of the produce

The treatise deals with an elaborate system of espionage, including spies disguised as ascetics, merchants, and other people of the common citizenry, for intelligence gathering, thereby mitigating threats emanating both from within and without.

Military Strategy

Both texts strongly focus on the role and strategy of military power in the retention of power and stability.

Machiavelli, on one hand, argues that a ruler must prioritize the establishment and the maintenance of a strong military. He warned rulers against relying on mercenaries or auxiliary troops; rather, every ruler should develop a well-trained and loyal standing army. He also mentions that fortifications are vital and how force should be used carefully in quashing any dissension from within and any threats from outside. For instance, the methods the Romans deployed in maintaining control over the conquered peoples by formation of various colonies, building strong fortresses, and indigenization of local elites into the Roman administration.

Kautilya's Arthashastra, on the other hand, provides an extensive analysis of military strategy, including the organisation and training of the army, the use of various types of troops, and the strategic deployment of forces. Kautilya also emphasizes the importance of guerrilla tactics (Kutayuddha) and psychological warfare (Mantrayuddha), espionage (Upaya), and diplomacy in achieving military objectives. He proposed some strategies like

Chaturaanga-Bala or the Four-Fold Strategy, Sadgunya or the Sixfold Policy, Prayogika or the Use of Psychological Tactics, and so on.

Other than this, he suggests rulers to build forts on hills, forests, and riverbanks in order to be well-stocked with provisions at all times. He advocates that the rulers must adopt practical methods of waging war using both direct and indirect methods to win.

Economic Policies

Of the founding fathers of political realism, economic prosperity is an issue of concern to both, although the approaches differ in detail and emphasis.

While Machiavelli briefly touches on economic issues, primarily in the context of maintaining political stability and military strength, Kautilya provides a comprehensive guide to economic policies, covering topics such as agriculture, trade, and resource management in detail.

Machiavelli teaches princes how not to squeeze their subjects beyond reasonable taxes and to keep the people in a state of contentment and prosperity to avoid rebellion.

In contrast, Kautilya provides detailed regulations regarding the administration of various economic activities, including trade regulation, administration of public works, and tax collection. Kautilya suggests that rulers should introduce a method of economic incentives and penalties to make the people act in compliance with the state's policies. The policies he proposed in that age, like heavy duties on imports, minting coins of standard weight and purity, infrastructural development for generation of employment, nationalising industries like mining and salt production, categorizing labour for different wage rates, are some of the many ideals which the nations strive to implement even today.

Foreign Policy and Diplomacy

Both recognise the importance of diplomacy and strategic alliances in maintaining state security and stability.

Being more cynical about the world, Machiavelli advises rulers to be cautious in their alliances and to prioritise their interests. One such policy was that of keeping neighbouring states weak and divided to prevent any of them from becoming a threat. He warns of flexibility and pragmatism in foreign policy while laying emphasis on strategic use of deceit

and manipulation in effective attainment of set diplomatic goals. This he exemplifies on the case of Ferdinand of Aragon, who through cunning and deceit was able to expand his power.

Similarly, Kautilya's Arthashastra offers a more systematic approach to foreign policy, outlining various strategies for dealing with different types of states and rulers. Fundamentally, he argues that for any foreign policy to yield certain results, espionage and intelligence gathering have to be employed. Mandala Theory (Circle of Kings) wherein he outlines a framework for understanding the complex relationships between different states as allies, enemies or neutrals and the Sixfold Policy (Shadgunya) of choosing a position of peace, war, neutrality, alliance, preparing for war or double policy based on the circumstances of his state, remain relevant even in the current geopolitical scenario.

Conclusion

Both Machiavelli's "The Prince" and Kautilya's "Arthashastra" are foundational texts on political theory and statecraft that provide great insights on power nature, governance, and strategy. Although they share some similarities in their pragmatic approach to politics, they differ significantly in their ethical frameworks, scope and focus.

Machiavelli has focused primarily on the attainment and maintenance of political power, firmly endorsing ruthless and immoral means. His views concerning human nature and morality reflect his overall pessimism, hence he has focused more on manipulation and control.

While Arthashastra by Kautilya provides a more comprehensive guide to governance by integrating ethical principles with pragmatic statecraft, it places equal emphasis on ideals of justice, duty, welfare of the state, and its subjects with strategic manipulation and deception.

Though separated by time and culture, these two works have much in common; they are the politically realist stances that are still pertinent today hence offering lessons to modern politicians as well as scholars.

Interview

In Conversation with Dr. Surjit Bhalla



Editor: Research cannot come about in isolation to the current ecosystem of work. How do we, as economists, produce research that is transparent and true to the data, without placing it in an ideological context. Is acknowledging the said ecosystem important while producing research that might be contrary to popular ideologies nationally and globally?

Dr. Surjit Bhalla: Let me first thank you for having me for this interview. I have had a long, long connection with Miranda House. My wife as well as my two sisters were students there back in the 70s and 60s respectively. So, I've always looked forward to your association. And I welcome this opportunity.

You know, I really empathize and maybe even sympathize with your generation. Because when I was growing up in the 60s and the 70s and all through until about just a decade ago, that discourse was very straightforward and the society wasn't so polarized but it's not so much the polarization. I just returned from the US for one month, and the US is obviously very, very polarized. But in the economic debate, they go by the data. So there is no polarization possible because you must have seen and you should see debates between Larry Summers and Angus Deaton and so on and so forth. It's all very transparent, all in reality. Now, that's the first point about polarization and economic debates in India.

And as you very astutely noted, through the set of questions that he provided, that I have been somewhat of the, not the mainstream, but certainly divergent from the conventional

wisdom. And this happened when I was at the World Bank and so on and so forth. And at that time, also, while there was a divergent view, everybody accepted it and challenged it on a legitimate basis.

Today, the ecosystem in India, in particular, and the liberal left, what I call the left liberal west, that is not in the universities, but in terms of publications, in terms of outlets, you know, like Project Syndicate, etc. I would suggest that you look at Project Syndicate, these are all columnists, so-called experts, etc. and show me one which is of the very, very narrow mainstream of left liberal things.

And it is pronounced in spades in India. As I said, this is a global phenomenon, less so in the US, probably strongly so in England, and very strongly so here. So, it's very difficult. And I've stuck to that, and as you will see from the questions and the answers, that to give my story, my interpretation, based on quote-unquote facts. Now, everybody in India and in the world is allowed to invent their own facts but when they do so, they should be called out for doing that.

Editor: Sir, before the general elections, you predicted that the ruling party could secure 330-350 seats, and in a recent interview, you attributed this forecast to the belief that economic progress and welfare are the primary factors influencing voter behaviour. However, if we examine the World Bank's data on India's annual GDP growth rate, we observe that after the pandemic, India's growth rate was 9.7% in 2021, then declined to 7% in 2022, before rising slightly to 7.6% in 2023, and remaining relatively stable during the first quarter of 2024. Given this data, could you elaborate on why you predicted such a high number of seats for the ruling party? Additionally, what do you believe could be the factors contributing to the potential loss of votes? Are there specific economic policies that you believe have been underappreciated by Indian voters?

Dr. Surjit Bhalla: As I explain in quite detail in the book, *How We Vote*, which had this forecast of 350 seats for the BJP, remember a key line in that book, so my guiding lodestar for that book was Bill Clinton's comment on the 1992 election in the US- '*Is the economy stupid?*'. That was the centerpiece of my book, has been the centerpiece of mine, even when I was in the US when he made that statement. So I've had that belief. I didn't have as articulate and as catchy a slogan as *the economy is stupid*. But that's been my belief throughout and remains my belief today.

Now, I will get to the second part. What happened? *Very important question.* But let's just look at the economy. You've cited aggregate growth rates. It so happens that those aggregate growth rates are the highest in the world.

And remember, our population growth rate is down to 1%. So 7%, 8% translates into 7% per capita. In the 90s, when we had the reform, and we were growing, or even in 2004 to 2011, when we grew at 8%, 9%, the population growth rate was 2% or 1.8% or whatever. So equally stupid is the per capita stupid, not just the aggregate growth rate. And I did present a very detailed table showing how '*was the economy stupid?*' throughout more or less our history. I think the crudest statistical test was looking at the per capita growth rate and whether you won or lost.

And 10 out of the 14 elections I was able to explain by this very, very crude aggregate statistic. Now come to the second most important part and actually the most important part of your question is 330 to 350 and they get 250.

What the hell happened? I've worked on it since.

I have some non-economic explanations, which I wrote in a piece on June 4th, the day of the election results. So I was in the U.S. when the Kent State Shootings happened. In the Kent State, four students who were protesting against the Vietnam War got shot and got killed on a campus at Kent State. So the principle I have for all governments since then and including them, never ever mess with students and we made that mistake. Remember when the police or whatever sent you to jail? *Stupid.* You gain nothing. You guys at your age are supposed to do all kinds of weird things, which is what makes that age very exciting.

So let them be. One is you don't mess with students. The second is you don't mess with the middle class, especially with a rapidly growing middle class that we have in India today and over the last 10 years and over the last 50 years.

Now, look at the tax to GDP ratio for India. It's at 19%. Now what the ecosystem will tell you, oh, I was just at a function yesterday as somebody from India.' Why are you saying that India's tax to GDP ratio is 11%? That's the center. You don't pay taxes to just the center, you pay your state taxes and your local taxes and so on.

So India's tax to GDP ratio is close to 19%. What is the US tax to GDP ratio? 19%.

We are one of the highest and given up our capital income, which is very low, the highest in the world. And for reasons which we can go into perhaps another time, why this high tax to GDP ratio is with our unusual, maybe usual, but certainly unusual given the circumstances,

obsession with decreasing the fiscal deficit. But for most countries, I would say 95% of the countries, the fiscal deficit has nothing to do with the price of tomatoes. But we have a monetary policy on that. We need to reduce our debt for future generations.

You've heard or you will hear all of that nonsense. But the tax in China, for example, in East Asia, which is our model for fast-growing countries and very successful, the aggregate tax to GDP ratio is 13%, 14%, 15%. So what do we do with 19%?

I think that and the middle class is very genuinely upset. And I think, you know, that is a factor that I didn't take into account because the aggregate numbers were so good. But when I did the study, which was, unfortunately, I did it after the election rather than before, because I was trying to find out what happened.

Certainly, the end of taxation has been underappreciated by Indian voters? I think broadly, our economic policy has moved very much in the right direction. And this started in 1991 during the economic reforms.

After 1991, we've had ups and downs. Basically, we have done exceedingly well in the last 30 years. And that doesn't mean all the policies have been correct, but broadly in the right direction. I would point, however, one policy that we've had since the 70s, which is a disastrous policy, and which is on this entire protection and subsidies to the agricultural sector. As you know, the best way for you to become rich is to go and start a farm somewhere. All that land is allocated as farmland. You don't have to pay any taxes. That's a little bit of an exaggeration, but not too much. But what I want to emphasize, if you recall, and explain to me the following. In 2019, the Congress Party, in their manifesto, said that we need to get away from the MSP system, and agriculture has to be reformed. And they laid out a blueprint for that. In 2021, Arvind Singh, who was the Chief Minister of Punjab, asked none other than one of India's most distinguished economists, Montek Ahluwalia, whose wife, incidentally, was also at Miranda House way back. But he wrote this report saying that agriculture should be reformed in the following fashion, the MSP system. Then, Prime Minister Modi has an ordinance and the whole story, or the whole advocacy of changing agricultural policy in India. And actually, I've been involved in discussions about agricultural policy for the last 20-25 years. The most dominant part of the ecosystem was when the Congress government had advocated the same. And when PM Modi does it, then you have the ecosystem led by the Congress Party.

Call in, right? *Nihana*.

And Thakberg is now the leading agricultural policy expert for India. There is no country in the world which has done good in terms of growth rates, which has done it without agricultural reforms.

We are the only country. So think where we would be if we had had agricultural reforms. And where we would be tomorrow if we had agricultural reforms. So this is the other policy that I think is to be held. And this is politics. This is the ecosystem. But we shouldn't get away from the recognition that this is a bad policy. And we should oppose it. And obviously the issue is a lot more complicated. It's not that complicated really. But I'll grant you, it's slightly more complicated than I'm making it out to be. But this is the other policy that leads to the high taxation and therefore policy that is not really appreciated.

Editor: Sir, recently the budget announced the removal of indexation benefits for long term investments in real estate and other unlisted assets. Given your expertise in portfolio management, how do you believe this would impact long term investments, and reporting of assets, specifically in the real estate market and gold? Additionally, as indexation is a basic economic principle, how far does this change hold in terms of economic validity?

Dr. Surjit Bhalla Again, I would recommend that before we make any pronouncements on India, etcetera, please study how the rest of the world you know, the developed world has a major advantage over countries like India. They are much further advanced on the income curve. So they have, you know, they have faced these problems. And that is the origin of his team on this. They have faced these problems and come to grips with it. I don't know any country in the world that doesn't give special recognition to real estate in terms of its the taxation of real estate. So that's point number 1. That it's not like the real estate is like buying, you know, computers. Yeah. When you buy real estate, it's not like buying or any other goodie that you get. It's not like buying education. It's, you know, it is special. And the point is, it shouldn't be so special that it detracts. So now the government came out with a policy on you know, and we do have a problem that, basically, housing prices went through the roof starting started to go through the roof in 2002, 2003. Prior to that, you look at real estate prices in India, hardly any growth.

So we've had exceptional growth in real estate prices, especially in the larger metro areas, not so much elsewhere. But we've had so there is a particular problem as to how to treat, and all governments in India have recognized the special nature of real estate, and, so it's not as if they have been not aware. So what they did here, which they have now rectified and

brought it up to a later stage, is, you know, you don't do the “jhatka” method. You do a gradual adjustment, which I think is what we are approaching now in terms of the real estate, fiasco that we the budget, came up with, and they protested.

And it's the middle class again, that faces problem in this space. So I think we are now on the right path. One thing you should if you are economic students, and some of you might be, that, you know, we've had a reform of corporate taxes, and we introduced the GST, which is really the form of indirect taxes in 2017. Now I think what is awaiting, is the form of the direct tax code, which the 2 governments which I think was first started by Vijay Kelkar in Bajpai's tenure 99 to 2004. And when we first wanted to to, if you will, reform the taxation system. In 2009, under Manmohan Singh, they advocated and got out the form of direct taxes, which has was shelled first by the by then Manmohan Singh government, and delayed now by the, Narendra Modi government. But I think the time has come. And the issue here is should all assets be, should all investments be treated the same long term versus short term, cap against taxes, etcetera. And it is something that we need reform on. Absolutely no question. I've been advocating it for at least a I was part of the Gilker Committee report back in 2004. So I you know, we need that. Let's hope it comes in the next budget in February, but it is something that, should be on top of the agenda for the government to bring about a modern, direct tax system rather than what we have, you know, we have tinker with and patched up and, you know, band aids like IOM into the old tax code. It really should not be that complicated. But, that's what Band Aid's do.

You know? So we need we need a reform, and let's hope it comes.

Editor: Based on your IMF Working Paper titled *"Pandemic, Poverty, and Inequality: Evidence from India,"* - The paper discusses the divergence between CPI and PFCE deflators and their implications for consumption growth estimates. Could you explain how this divergence affects poverty measurement, particularly regarding the “pass-through” rate?

Dr. Surjit Bhalla: There are several questions in the formulation of one question. One can have detailed discussions on all of them, they are important questions. First of all, my cardinal principle about economics and economic policies is separate and a lot of these questions are, this ‘conflict’ separates growth from distribution. So, what does that mean? First of all, policy should be there to maximize growth. It could be ecological growth, climate-free growth, whatever it is, you maximize the growth. Please separate distribution from growth. You get growth, you get taxes and you use taxes to redistribute, for whatever

redistribution policy. I think at JNU they still teach you Marxian economics or maybe at Calcutta Presidency College, there's still a course. It's got to be the stupidest idea in the world that there is a system which will both produce good work and good distribution, impossible. So, what you have to do as a policymaker is generate growth. As a good policy maker what you have to do is to make sure that the distribution is socially desirable and that's what this government succeeded in the pandemic, with the free food and everything else. What was the decline? Minus 6 percent GDP per capita growth and for the poor, they provided free food grains and food pulses, much more than what was required, as I discussed in the paper, in the pandemic. So, the simplest answer to that is, don't confuse, and Congress in India confused it, it's part of the Indian psyche that we can combine growth and distribution into a *khichdi* which will taste good all the time. *Ni hoga*. So, that answers the question.

Now, coming to the interesting one, addressing unemployment in the higher educated sector of the population. I previously on some other issue, on the ecosystem, where I felt sorry for you guys, and on this issue, I'm doubly sorry. I think I mentioned somewhere about the New Wealth of Nations in one of the previous questions and look at chapter 7 of New Wealth of Nations and what chapter 7 does is to look at, in 1993 the amount of new college graduates in the Western world, were something like 50 million and in the rest of the world, it was also 50 million. The number in the Western countries has gone up from 50 million to 962-963 million a year, the number for the rest of the world has gone up from 50 million to something like 25,300 million college graduates. Then also there was the same problem of quality. Unemployment rates for college graduates in India are not that high, but look at what other countries are. I have just returned from the US and in one of my articles that I've presented at the Conference in Aspen. This is in Brazil, for 3 applicants for the post in Biomedical something, there were 600 applications. The reason people in India apply to government jobs is because you don't have to work really hard, you get a pension and you get a very rich income so that's why everybody applies for government jobs. At low levels, at high levels, at whatever level. And then, you become a feudal aristocrat by getting into the IAS, I mean it's a fantastic life. But don't delude yourself into thinking that everybody can get that job, they cannot, this system won't work and as it is the system doesn't work but nevermind. But the point is, there's excess supply of college graduate students, bigtime excess supply. Even China, they stopped publishing the data on unemployment. In the US, for one job in a museum, there are PhDs applying and there are 600 applicants. Now, it would be a great job but there are 600 applicants for one job. What we think is that what's happening in India is unique and what pains me are Indian scholars who should know better are articulating this nonsense and it is nothing less than pure unadulterated nonsense. Now, on unemployment,

the figures are as follows, graduate unemployment in India, that is from the ages of 22 to 29 is at the lowest level in the last 20 years today and it's something like 10%. Now, let's look at what's happened in India since 1980 and this is my whole problem with Indian economists, left ecosystem, etc. The unemployment rate for those between the ages of 29-64 is around 1% and has always been that whether you're college-educated, poor or not so poor. And in, 22-23, that unemployment rate for those above the age of 29 was 0.6%, one of the lowest ever in India. And in China it is like 20%. The youth unemployment rate everywhere is high, except maybe the US. Look at France, they're having riots there. What happened in Bangladesh? Ask your great Indian economists, when they talk about this. So, I think this is a great question, I'll be talking about this on the CSCPA on 10th of September with Santosh Malhotra taking the opposite view. Just look at the data, it's a part of the ecosystem here, you can become a big scholar, respected with certificates and you'd never have looked at the data. So, you guys are at the start of your journey, just look at the data and nobody is above board, you have to do your own work and obviously you have google and you can decide. So, yes unemployment at 10% is high, unemployment at 15% is even higher, unemployment at 20% is even higher. So, yes what you'd like is somewhere between 0-5% unemployment. Anything above 5% is high. I'm not denying that there is a problem and you guys are going to face this. You will not get the job, all of you will not get the job you want. I worked this up at the highest levels and I was told that even cabinet ministers, cabinet ministers don't get the cabinet ministry that they want and they complain. That's human nature. Maybe there are a few people, maybe I'd say 5% of the total population, 10% of the total population who have the job that's their ideal job. And they don't have to be educated, upper class twits to have a job that they enjoy. So, yes all of this 10% employment is too high, we need to get it down and policies should be in place but we have to be somewhat realistic.

Editor: Sir, in your book 'The New Wealth of Nations', you put forth the idea of education being this 'new wealth', being more important and more equally distributed than financial wealth is today. So my question is how do you see the balance between expanding access to education and improving the quality of education? What should be the priority for developing nations?

Dr. Surjit Bhalla: The balance between expanding access to education and improving its quality is often less complicated than we make it out to be. Primary and secondary education have traditionally been the responsibility of governments in most countries. This approach aims to provide equality of opportunity, rather than equality of outcomes. In India, although

the government typically only allocates around 3% of the GDP to education, the private sector contributes enough to raise the total spending to approximately 6-7%.

Achieving equal quality of education is nearly impossible, regardless of how much a country progresses. For developing nations, the priority should be to ensure equal access to education at least through high school.

Editor: Given the significant role of the service industry in the Indian economy, how do you anticipate the advancement of artificial intelligence and automation impacting this sector? Specifically, considering India's large workforce engaged in various service roles, what are the potential challenges and opportunities that arise from this technological shift? How do we mitigate any negative impacts and maximize the benefits of AI and automation?

Dr. Surjit Bhalla: Technology will inevitably be adopted; this is something we cannot mitigate, and it almost always leads to positive outcomes. Let the markets function freely. Our concern should be intellectual rather than regulatory. Government intervention is not the best solution in this case. The net impact on employment could very well be positive. India's population, which feeds into the job and college markets, has decreased by approximately 300 million over the past decade due to a lower birth rate. In some ways, AI is a byproduct of this societal shift.

Editor: According to you, what do you think could have been improved in this budget? Did the coalition government cause the budget to be different from if it was made otherwise?

Dr. Surjit Bhalla: Coalition governments have existed forever, so this is not something that's new and not challenging in the formulation of economic policy and some might argue that in a coalition government the way the checks and balances in the formulation of policies, both economic and non-economic. So, I think that there was a very genuine case to be made for the fact that it won't be worse and might actually be better if coalition government is making the budget. Indian politics being what it is and we saw and I discussed in detail the fiasco of the agricultural policy, we now have the leader of the opposition, Rahul Gandhi arguing for '*jitni abaadi utna haqq*'. If that interferes with economic policy, then I think, it'll be disastrous. You guys should have this discussion on what I consider one of the most neanderthal policies ever advocated. Just think about it okay, that no more than 10 seats, no more than 15, 17, 20 Muslims. I get terrorized just thinking about the consequences of '*jitni*

abaadi utna haqq'. I hope it doesn't, I'm confident it won't interfere in the budget making process. Good sense almost invariably does prevail in India. I'm hoping that the 2024-25 budget will have a reform of the Direct Tax. I think it's too much to expect that they will get back to the agricultural reforms of the MSP's but let's see. It's to be welcomed, the key point about the coalition government is that it allows for checks and balances internally. We have enough checks and balances externally but at least the policy's formulates that they go through checks and balances. This government came out with the policy when it wasn't coalition government and you have to think about what gets the government to come out with policies like this and then there's history of economic and budget policy making to deal with these movements. If you're using a credit card which is an American credit card or whatever and if you purchase or take a loan in the US you'll be taxed on it via TDS and then you will have to file to get the TDS back. So, I would say that you guys should in your class suggest to your professor to have a discussion as to how even this be thought about let alone be part of an officially announced policy which thankfully they didn't implement. For me, the fascinating part of Indian policy making in this discussion is how do these things come about. We have a very elaborate system that it has to go through. We have IAS officers and writers and we have other people coming in and making policy and everybody thinking of the greater good and they're all well meaning and they're all honourable men and women. But what comes out is not always very honourable so I think that's to be expected maybe in a democracy but I think in the aggregate we have succeeded in making good policy, not optimally good policy, not always good policy but the system works. And it has been working and let's hope it continues.

Editor: Earlier this year, we had the pleasure of hosting Dr. Arvind Virmani at our international conclave. During his session, he discussed the "trickle-down" phenomenon, where the positive changes in the economy primarily benefit the lowest sections of the population. Given that you co-authored the paper "*Pandemic, Poverty, and Inequality: Evidence from India*" with Dr. Virmani, do you believe that this "trickle-down" effect is a key reason behind the positive conclusions drawn about the pandemic's economic impact on poverty reduction? Moreover, considering the current scenario of rising unemployment, particularly among the educated class, do you think this model might overlook their challenges? What strategies do you suggest for addressing unemployment in the higher-educated segment of the population? Finally, is there a potential conflict in simultaneously

addressing the welfare of both lower and higher economic classes, or can these goals be pursued harmoniously?

Dr. Surjit Bhalla: There are several questions in the formulation of one question. One can have detailed discussions on all of them, they are important questions. First of all, my cardinal principle about economics and economic policies is separate and a lot of these questions are, this 'conflict' separates growth from distribution. So, what does that mean? First of all, policy should be there to maximize growth. It could be ecological growth, climate-free growth, whatever it is, you maximize the growth. Please separate distribution from growth. You get growth, you get taxes and you use taxes to redistribute, for whatever redistribution policy. I think at JNU they still teach you Marxian economics or maybe at Calcutta Presidency College, there's still a course. It's got to be the stupidest idea in the world that there is a system which will both produce good work and good distribution, impossible. So, what you have to do as a policymaker is generate growth. As a good policy maker what you have to do is to make sure that the distribution is socially desirable and that's what this government succeeded in the pandemic, with the free food and everything else. What was the decline? Minus 6 percent GDP per capita growth and for the poor, they provided free food grains and food pulses, much more than what was required, as I discussed in the paper, in the pandemic. So, the simplest answer to that is, don't confuse, and Congress in India confused it, it's part of the Indian psyche that we can combine growth and distribution into a *khichdi* which will taste good all the time. So, that answers the question.

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ideal job. And they don't have to be educated, upper class twits to have a job that they enjoy. So, yes all of this 10% employment is too high, we need to get it down and policies should be in place but we have to be somewhat realistic.

Editor: Given your background in electrical engineering, what sparked your curiosity and interest in economics? Was there a particular moment or event that led you to shift your focus from a core science degree to the world of public affairs and economics?

Dr. Surjit Bhalla: An important question. And I'll tell you the honest, correct answer. This is when everybody's mind is in flux. You don't know what you want to do and where you'll end up. And this is part of a very exciting journey that you all are the beginning of. So in my case, I graduated from Delhi Public School in 1964, and everybody in my generation wanted to apply for engineering. Okay? And so did I. And I ended up at Purdue, which is another story. But be that as it may, I ended up in engineering as did practically every one of my friends in India. Then at the end of the 1st year this is 1965, I was good in math, the usual stuff, but, I wasn't enjoying that much. So my brother had graduated from the place. And he said, listen, stick with engineering. And, you know, you can do whatever you want afterwards.

At least that was completely the correct advice that he gave me. So the first job I wanted to do after engineering was to apply to law school. And because this interest in public affairs was always there. And, you know, every senator that you see in the US, etcetera, less so in India. You should have more, much more educated people, lawyers, etcetera, So I wanted to know. At that time, if you graduated with a law degree from the US, you could not come back to India and practice. Now that has changed over the last, I think, 10, 15 years. You get an American Board degree and come back to work here. I graduated in electrical engineering. But 1965 was the start of the computer revolution. You know, those massive computers that could fill this entire room with 16 k memory. And Fortran was a big language, And I must say I really, really enjoyed coding, and, you know, computer engineering. Now they actually have a course, computer science, computer engineering. At that time, computer science was part of engineering. So how did I get to economics? Well, I wanted to but didn't, couldn't go to law school. I was passionate about public affairs and politics and and a few other you know, I actually worked on Silicon Valley, but that's another story. And so then there was, you know, the Woodrow Wilson School of Public and International Affairs. Incidentally, now, because we live in a very, very politically correct world, they've changed the name. So there's no longer Woodrow Wilson School. It's called the Princeton School of Public and

Commercial Affairs. So that school had 4 departments. The first was political science, then it was organization, the third was economic development, and the 4th was economic policy. We finally get to, in a way, circuitous way to what I've been doing for the last 60 years. So I said, I will take political science discipline. And I took one course in political science, and I said never again. So then the choice was economic development or economics and public policy. And I chose economics and public policy. And that's how I got into economics. I did study philosophy, did study politics, and I managed to follow your courses. And it was at graduate level. And that's why I really got involved in economics. And then I did my PhD in economics. And, you know, if you're interested in public policy more, I would do economics. And so that's how I think I ended up shifting in focus. But, you know, engineering background, science background, mathematics is the same here. So, to the extent I don't know how much pure mathematics will help anybody other than, getting your fields priced, but mathematics is really cool, for all the sciences including economics.

Meet The Team



Top Row: Noorpal, Tanya, Ekanshi Makheja, Jigisha

Bottom Row: Urvika, Rama, Gitika Arora, Shruti

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